# MARKETING THEORIES AND CONCEPTS FOR THE INTERNATIONAL CONSTRUCTION INDUSTRY : A STUDY OF THEIR APPLICABILITY AT THE GLOBAL, NATIONAL AND CORPORATE PERSPECTIVES

BY

LOW SUI PHENG

A thesis presented to the University of London as part of the requirements for the award of the degree of Doctor of Philosophy

Bartlett School of Architecture and Planning
University College London

February 1990

## ABSTRACT

The role and applicability of marketing theories and concepts are explored at three levels of analysis for the international construction industry. Developments of the theoretical constructs are traced as marketing evolves to encompass an international perspective. The relevance and need for marketing in the construction industry was examined. Four schools of thought were identified before the strategic significance of marketing in the market place was reviewed and argued. The marketing implications of financing, countertrade, technology transfer and joint venture were considered.

At the global level, the theoretical issues and applications of Marketing Information Systems are extended for the international construction industry. An analysis of global construction markets in value added terms was conducted, disaggregated according to types of economies, regions and political groupings. The markets in Asean and the EC were examined. A global summary of the world's construction industries was extracted diagrammatically for 19 regions and 180 countries and territories.

The influence of marketing and construction on economic development was explored at the national level. A coalescing model was adopted to provide a proposed synthesis of the tripartite relationship between marketing, construction and economic development. The cumulative events leading to the evolution of the construction exports industry in Singapore was studied to highlight the governmental role in nurturing and promoting a national marketing drive overseas for construction services.

At the corporate level, the theoretical foundations for organising marketing activities in international construction firms were examined. Empirical evidence from a field study in the United Kingdom shows that the Contingency Approach appears to be valid for structuring marketing organisations in international construction firms. Nonetheless, at a more detailed level of analysis, the geographical structure seems to be well-placed for organising foreign construction marketing activities.

The three-pronged approach adopted in this thesis shows how marketing theories and concepts may be appropriately applied within the global, national and corporate contexts of the construction industry.



Keywords : Marketing

International Construction

Global Markets

Singapore

Marketing Organisations

## ACKNOWLEDGEMENTS

It is certainly not an easy task to pen the names of all those who have contributed and rendered generous assistance to make this thesis possible. I am indeed grateful to everyone who have helped in one way or another.

First and foremost, Mr. John Andrews has been most considerate and helpful in his supervision of my progress. His uncanny ability to provide subtle but yet encouraging advice, particularly at times of despair, will continue to awe me for a long time to come.

Much co-operation have been received from the academic staff of other universities and business schools as well as practitioners from the industry who have generously and patiently gave of their time to attend to all my queries and clarify my thoughts. The Construction Industry Group of the Chartered Institute of Marketing, the Export Group for the Constructional Industries, the Market Research Society, the Building Employers Confederation and the Singapore High Commission in London, in particular, must be singled out for special mention. The librarians at the London Business School and the Export and Marketing Intelligence Library of the Department of Trade and Industry have been most helpful in guiding me to the right source of information to be found within their first class facilities. I am also grateful to all those companies, both in the United Kingdom and in Singapore, who have responded to my study and who have afforded me the opportunities to learn and understand their marketing organisations and operations. For reason of confidentiality, their anonymity have to be respected and maintained.

I am very much indebted to the Overseas Development Administration for their award of the ODA Shared Scholarship for my first year of study in England. The National University of Singapore has provided the necessary financial support for subsequent years under the NUS Overseas Graduate Scholarship Scheme. Last, but not least, the expenses for my fieldwork in the United Kingdom have been defrayed by an award under the Sir Christopher Cox Memorial Fund (New College, Oxford). The generosity of the Trustees for this Fund is hereby acknowledged.

Finally, my wife Ong Bee has been most extraordinary in understanding and coping with all the demands typical of most serious research students. I would like to dedicate this thesis to her for accommodating all these in her stride.

I have fought a good fight,
I have finished my course,
I have kept the faith.
2 Timothy 4:7

May the grace of God sustain all of us now and forever more.

Low Sui Pheng
Knightsbridge, London
February 1990

CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

| | |
|---|---|
| ACF | Asean Constructors Federation |
| ADB | Asian Development Bank |
| AMA | American Marketing Association |
| APPECS | Attachment of Public Sector Professionals for the Export of Construction Services |
| ASEAN | Association of South East Asian Nations |
| ASME | Association of Small and Medium Enterprises |
| BIM | British Institute of Management |
| BOO | Build, Own and Operate |
| BOT | Build, Operate and Transfer |
| CARICOM | Caribbean Community and Common Market |
| CDIME | Committee for Development of International Marketing Expertise |
| CEPU | Construction Exports Promotion Unit |
| CIDB | Construction Industry Development Board |
| CIM | Chartered Institute of Marketing |
| CITB | Construction Industry Training Board |
| CITC | Construction Industry Training Centre |
| CMEA | Council for Mutual Economic Assistance |
| CMIS | Construction Market Information Service |
| CONQUAS | Construction Quality Assessment System |
| CPF | Central Provident Fund |
| DBS | Development Bank of Singapore |
| DSS | Decision Support Systems |
| DTI | Department of Trade and Industry |
| EC | European Community |
| ECICS | Export Credit Insurance Corporation of Singapore |
| EDB | Economic Development Board |
| EDP | Electronic Data Processing |
| EFTA | European Free Trade Association |
| EGCI | Export Group for the Constructional Industries |
| EMIL | Export and Marketing Intelligence Library |

| | |
|---|---|
| EPRG | Ethnocentrism, Polycentrism, Regiocentrism, Geocentrism |
| EXIM | Export-Import |
| GATT | General Agreement on Trade and Tariffs |
| GDP | Gross Domestic Product |
| GDFCF | Gross Domestic Fixed Capital Formation |
| GNP | Gross National Product |
| GSIC | Government of Singapore Investment Corporation |
| GSP | Generalised System of Preferences |
| H-O | Heckscher and Ohlin |
| HDB | Housing and Development Board |
| HUDC | Housing and Urban Development Corporation |
| IBRD | International Bank for Reconstruction and Development |
| ICB | International Competitive Bidding |
| ICE | Institution of Civil Engineers |
| ICP | International Comparison Project |
| IDI | International Direct Investments |
| IFAWPCA | International Federation of Asian and Western Pacific Contractors' Association |
| IGM | Interest Grant for Mechanisation |
| ILO | International Labour Office |
| IMF | International Monetary Fund |
| IMechE | Institution of Mechanical Engineers |
| JTC | Jurong Town Corporation |
| LAS | League of Arab States |
| M-H | Moavenzadeh and Hagopian |
| M&E | Mechanical and Electrical |
| MAS | Monetary Authority of Singapore |
| MDAS | Market Development Assistance Scheme |
| MIS(s) | Management Information System(s) |
| MIS | Marketing Institute of Singapore |
| MKIS(s) | Marketing Information System(s) |

| | |
|---|---|
| MLC | Market Life Cycle |
| MND | Ministry of National Development |
| MRT | Mass Rapid Transit |
| NEDO | National Economic Development Office |
| NFBTE | National Federation of Building Trades Employers |
| NICs | Newly Industrialising Countries |
| NMP | Net Material Product |
| NPB | National Productivity Board |
| OLI | Ownership, Locational, Internalisation |
| OPEC | Organisation of the Petroleum Exporting Countries |
| PLC | Product Lift Cycle |
| PMCC | Property Market Consultative Committee |
| PRC | People's Republic of China |
| PSA | Port of Singapore Authority |
| PWD | Public Works Department |
| RMI | Repair, Maintenance, Improvement |
| SBU | Strategic Business Unit |
| SCAL | Singapore Contractors Association Limited |
| SDF | Skills Development Fund |
| SEB | Singapore Enterprise Bureau |
| SFCCI | Singapore Federation of Chambers of Commerce and Industry |
| SIA | Singapore Institute of Architects |
| SIM | Singapore Institute of Management |
| SISIR | Singapore Institute of Standards and Industrial Research |
| SIT | Singapore Improvement Trust |
| SITC | Standard International Trade Classification |
| SWOT | Strengths, Weaknesses, Opportunities, Threats |
| TDB | Trade Development Board |
| TEDS | Tenders Estimating Data Service |
| TTI | Technology Transfer Institute |
| UK | United Kingdom |

| | |
|---|---|
| UN | United Nations |
| UNCTD | United Nations Conference on Trade and Development |
| UNIDO | United Nations Industrial Development Organisation |
| URA | Urban Redevelopment Authority |
| US | United States |
| USSR | Union of Soviet Socialist Republics |
| VA | Value Added |
| WB | World Bank |
| 4 P's | Place, Price, Product and Promotion |

CHAPTER ONE

INTRODUCTION

## 1.1. PURPOSE

This thesis purports to review and extend existing marketing knowledge to selective areas of international construction contracting and economic development. The relevance of marketing theories and concepts for construction business will be explored and attempts will be made particularly to demonstrate their applicability for the international construction industry. Three main issues will be examined :

1. Can the marketing function be employed gainfully to monitor and identify potential global opportunities ? Can Marketing Information Systems be built for the purpose here ?
2. At the national level, is there a role for the marketing concept in the process of cultivating a construction exports industry ? And if there is a cultivational role, how does it develop with the passage of time ?
3. How do construction contracting firms structure their international marketing operations within their organisations ? What is the rationale, if any, for the adoption of particular organisational structures ?

In essence, the investigations will place emphasis on three levels of analysis, i.e. from the global, national and corporate perspectives. These areas will be explored after a review of the theoretical foundations which underpin each individual field of study. The findings of these studies will contribute not only to existing knowledge of marketing and international construction but will also provide new insights into the role and applications of marketing in international contracting operations. These will, undoubtedly, be of value for construction companies and government bodies.

## 1.2. BACKGROUND

Although marketing is not a new concept for some sectors of the national economy, the same certainly cannot be said of the construction industry. Hippo and Tamura (1988) have, for instance, reported that leading Japanese construction contractors have turned for the first time to using modern marketing and corporate planning concepts and methods in their business strategies only after the mid-1980s following the serious downturn of the international construction market and Japanese competitiveness in the first half of the 1980s. The marketing concept was first recorded to have its origin in agribusiness where it was applied before its extension into the manufacturing sector for both consumer and industrial products. While there have been claims that the marketing concept has always maintained a passive presence within society since time immemorial, nonetheless, it has also been widely acknowledged to have its initial endorsement in the United States for the distribution of agricultural goods in the 19th century where it subsequently gained academic and practical interests.

Bartels (1970, 1986), in comprehending the theories of marketing, has traced the development of marketing thoughts and practices within a metatheoretical

framework to highlight the plethoric range of opinions which falls on marketing from various perspectives. Kramer (1986, 1989), likewise, has conducted a methodological search for excellence in marketing theories to support investigations into the teaching of marketing. In the parametric approach (i.e. that which is concerned with the contents of marketing), Kramer (1986, 1989) has examined the relationships of marketing with spatial, temporal, categorical and monodisciplinary or ideological experiences. In contrast, the operational approach (i.e. that which is concerned with the processes of marketing) considers the applications of marketing with the minimum of time and effort. Mention has also been made of the eclectic or interdisciplinary approach which selects and utilises what has been perceived to be the most effective from among different disciplines and sources of knowledge. The appropriateness of such an approach has been expounded by Dunning (1977) in his eclectic works on economics which Seymour (1986) has subsequently adapted to analyse international investments in construction. With its emphasis on ownership, locational and internalisation advantages (i.e. the OLI Model), the eclectic approach adopted by Seymour (1986) has, nevertheless, tended to be more general than specific. Furthermore, Seymour's (1986) analysis has also omitted to examine the role of marketing within the context of different comparative advantages international construction companies have. While marketing may be seen to be less significant in a monopolistic market, the same cannot be said of a free-market economy where competition is keen, intense and often suicidal - as have been the experiences of some international construction firms in the Middle East during the 1970s and early 1980s.

In line with the other well-established professions in the engineering, medical and business disciplines which profess to have a unique body of knowledge and hence their rightful claim for professional status, marketing as a much younger profession, has also displayed all the familiar traits found in the other older professions with a membership congregating under a single governing institution aimed at promoting and safeguarding the interests of the profession. In tracing the development of the marketing discipline in the United Kingdom since the turn of this century, Walker (1976) has recreated the structural changes which eventually led to the formation of the present Chartered Institute of Marketing (CIM). (The Institute having received its Royal Charter in 1989). An exhaustive search by Walker (1976) shows that marketing does indeed constitutes a profession in every sense, albeit a relatively recent one when compared with the other more established professions in the engineering and medical fields, by virtue of its unique body of marketing knowledge in performing management duties and functions. Nonetheless, although there is a common and unique body of knowledge, the industry has recognised that its application is dependent on the nature of the industrial or service structures within which the various marketing functions are deployed. Likewise, marketing practices should and ought to vary depending on whether their

applications are directed towards consumer or industrial goods, and products or services. Keegan (1984), however, asserts that while markets may differ, marketing itself is universal. In response to domestic and international marketing issues, Bartels (1968) similarly suggests that marketing technology has universal validity and potential universal applicability.

Along with these assertions, the role of marketing within the construction industry was subsequently reinforced with organisational restructuring in the then Institute of Marketing with the formation, among others, of a Marketing Group for the Construction Industry in 1971.

## 1.3. DEFINITION OF MARKETING

It would seem that definitions are sought after to achieve two main effects. Firstly, these can serve as a yardstick to provide understanding and meaning to the subject-matter so that a frame of reference may be formulated where further discussions can be carried out. Secondly, once a mutual framework has been established, this can help to curtail unnecessary deviations. The validity of a single working definition of marketing acceptable to the industry appears to be a questionable and contentious issue which many academics and practitioners have sought to curb for many years. Bartels (1970) has observed that the development of the marketing discipline has been introverted with frequent discussions on its definition as well as vindications for its study. Numerous attempts have been made to fit the definition of marketing into a neat paradigm only to be refuted later by others for its lack of clarity, depth or relevance. This debatable issue continues today.

Baker (1979), in discussing the obstacles faced in deriving a precise definition of marketing, has sought to overcome the various objections by way of illustrations with nine different but ubiquitous versions of marketing commonly defined. Crozier (1975), likewise, has reviewed more than fifty different definitions before categorising them under three headings. Firstly, marketing may be classified as a process linking the producer with the market; secondly, as a concept or philosophy of business; and lastly, as an orientation which makes possible both the concept and the process. This approach, however, seems to mirror the difficulties encountered in attempting to provide an all-encompassing definition of marketing. In response, Fisher (1986) has levelled criticisms towards this approach for serving little purpose other than to create further confusion. Although there is generally a consensus over what marketing entails, there has yet to be one single, universally acceptable definition of marketing. As Halbert (1965) explains, these tenacious issues arise because marketing has no recognised central theoretical basis unlike those which exist for the physical sciences and some other behavioural sciences. Less optimistically, marketing appears to be a potpourri of borrowed ideas adapted from various business disciplines and other social, behavioural and methodological sciences. Nevertheless, to permit this research to be carried out within a consistent framework, it would still be necessary to refer to official definitions propounded by

the authorities, both general and specific for the construction industry. To partake further in this definitive debate here would, however, seem to be unwise.
While the American Marketing Association (AMA)[1] defines marketing as

> "the performance of business activities that direct the flow of goods and services from producer to consumer or user (AMA, 1965)",

the then Institute of Marketing[2] in the UK has defined marketing as

> "the management function which organises and directs all those business activities involved in assessing and converting customer purchasing power into effective demand for a specific product or service, and in moving the product or service to the final consumer or user so as to achieve the profit target or other objectives set by a company (Institute of Marketing, 1965)".

This would appear to imply a two-way communication flow between the vendor and the purchaser within a dynamic system where the vendor anticipates and reacts accordingly to continuously changing market forces. Likewise, in disseminating the concept of marketing among its members within the construction industry, the then National Federation of Building Trades Employers (NFBTE)[3] has suggested that marketing is

> "primarily and essentially the attitude of mind which manifests itself in the belief that a business can be run profitably only by identifying the demands of actual or potential customers and by defining the objectives and continuously tailoring the structure of the business in the light of this information to satisfy these demands (NFBTE, 1969)".

Wilson (1972) has also stressed that the marketing concept is a philosophy cultivating hitherto into a belief and an attitude of mind, not merely a system of selling or an objective organisational structure. There appears to be a high probability that the desire and prowess to market oneself within society, among peers and in virtually every human interactions has been so deeply entrenched that this subtle phenomenon has not been consciously recognised as marketing put into practice first-hand. Along these lines and although subjected to criticisms for holding out seductive promises of dramatic analogies, Bell (1972) has nonetheless proposed an ecological approach to explain the systematic relationship between man and his environment. Bell (1972) stresses that the concept of the ecological system with its emphasis on survival and adjustment processes has provided substantial contributions to our understanding of marketing and marketing managment. If this contention is sustainable, one would be able to perceive oneself moderating, articulating and reacting spontaneously to the environment and among peer groups, in what Anderson (1970) has described as a passive, self-adjusting mechanism within the economic system. Marketing is not an innovative creation of recent times. Within the mundane system where economic society functions, Kracmar (1971) reasons that marketing per se has been practised, albeit unconsciously and in a primitive form

ever since men first began to trade. What appears to be new about marketing today relates to its development along more methodological lines and a corresponding recognition that know-how in marketing may provide a self-generating and permanent source of economic growth.

However, quite apart from this observation of marketing as an age-old, time-tested natural extension of the human ecological system, there appears to be a further conceptual difficulty in its classification. While ecology is clearly a science, the systematic applications of its functioning principles in practice denote the need for some subjective flair. Hence, while the Construction Industry Training Board (CITB) has defined marketing as

> "the science of judging the market and providing for it (CITB, 1980)",

the Board, nonetheless, has prefaced this definition by stating that the modern company is not selling products or services but satisfaction. This in turn dictates the pace of the company, its timing as well as its direction. In so doing, by making reference to the need to fulfill customers' satisfaction and hence impinging into the philosophical area of values, it would be logical to deduce that science alone is inadequate. Whereas art is a skill and an ability to perform, science is a knowledge and scientific marketing procedures are based on this knowledge to further other factual evidence through the reduction and elimination of both chance and subjectivity. This would perhaps account for Risley's (1972) contentions following the argument that

> "marketing is both - an art in performance, from planning through selling to final decision-making; a science in its body of truths, and an avid user of scientific procedures in data processing, logistics, research, and innumerable areas of quantification (Risley, 1972:12)".

As would be expected in any dynamic systems, changes are inevitable. At the time of writing, the CIM (1989) has defined marketing as

> "the management process responsible for identifying, anticipating and satisfying customers' requirements profitably (CIM, 1989:1)".

For the purpose of empirical works in this thesis, the CIM's (1989) definition will be adopted here.

## 1.4. PRELUDE

The primary impetus and interests for this research study came about from past observations of foreign firms' operations in the Singapore construction industry and of the gradual improvement and eventual diversification of Singaporean construction contracting firms overseas in recent years. The latter phenomenon has spurred considerable interest in the small Island Republic after it was realised that the construction industry cannot go on expanding forever to generate orders for all

the firms operating in the country. In line with the Economic Committee's (1986) goal of promoting Singapore as a major service centre in the future, concerted effort has been made by the construction sector to expand overseas.

The success or otherwise of construction firms venturing abroad to procure works would seem to hinge decisively on numerous factors, not the least of which is an imperative consideration of competitive marketing strategies. It would therefore be of interest to study a number of the more established international construction firms to relate their adoption of specific marketing strategies with what may be perceived as the "success" element. However, because the organised thrust overseas has only been activated in very recent years, a study of this nature directed towards Singaporean construction firms does not seem to be plausible. As an alternative, London, as a major world financial centre where well-established international contractors tend to congregate for obvious operational reasons, appears to provide another strategic base for this study. To the extent that there is locational justification, Stallworthy and Kharbanda (1985) have even gone to the extent of acknowledging London as the "Mecca" for international construction companies.

It has been the original intention to study, firstly, the different types of marketing strategies adopted by UK-based construction firms when they operate overseas and, secondly, to assess their degree of success in implementation. Recipients of the Queen's Award for Export initially appeared to provide a good source to distinguish between construction firms which have been singled out for outstanding export marketing achievements. However, upon reviewing closely the criteria used for selection, the issues, in principle, have proved to be more daunting than anticipated. The use of financial ratios by the Selection Committee as a measure of export success have been criticised by Cunningham and Spigel (1971). McFarlane (1978) similarly notes that the criteria used for export success may not necessarily reflect an expectation of excellence in marketing. Although there have been some slight relaxation in the original criteria used, essentially to gain an award, an applicant needs to show collectively, among other things, a substantial and sustained increase in the percentage of total export sales to total business; and a percentage of exports to total business which is considerably and consistently higher than the applicant's sector of the economy[4]. In recognition of and to encourage progress towards excellence in the export marketing process, consideration will also be given to improved marketing organisations or new initiatives which cater for the export markets[5].

Numerous difficulties may be anticipated here. Firstly, because firms are considered only on the basis of individual, self-initiated application, there may be firms which are equally if not more successful than award-winning firms but who have not applied, or having applied, have not been selected for various socio-political reasons which are difficult to deal with objectively here. Secondly, the criteria used appear to penalise an applicant whose business had grown at home as well as abroad in

contrast to another applicant whose home market volume had shrunk. Thirdly, the use of financial ratios as measures of success may be hampered by a lack of information which reflects the true situation as a result of intra-company accounting and transfer-pricing practices prevalent in multinational conglomerates.

Furthermore, as Bonoma (1989) notes, "performance" or "success" has always been perceived as an elusive issue dependent upon a company's stated objectives commonly expressed in growth and profitability terms. Along these lines, Carlisle (1987) seems to has recognised the problem of dealing with companies which do not have growth objectives. Carlisle (1987) notes,

> "if a company's stated objective is to maintain turnover at present levels in real terms with attendant levels of profitability, and if this is achieved, would this be regarded as success ? (Carlisle, 1987:898)".

This complication is compounded further by the time element which affect companies of all sizes, each with its own corporate culture and identity. It would therefore be naive and misleading to consider marketing strategies from a static perspective. Decision-makers within companies may themselves be faced by much strategic uncertainties, let alone the academic researcher who is trying to uncover what appears to be the norms in the decision-making process. As Hague (1969) argues,

> "the world is a very complicated place. Even if he has the time in which to try, the businessman will rarely be able to work out exactly how important are all the various factors relevant to a particular decision, and how they are related to each other. He will never find it easy to know exactly what a particular decision implies in terms of profit earned or forgone (Hague, 1969:130)".

Although profitability can be viewed as a measure of success, it may not be able to yield an absolute result. The common pursuit of company's objectives in profit terms is again exposed to the diverse interests of different groups within an organisation. Ethical and social pressures, coupled with an apprehension of attracting further competitors into the business, may yet again lead to a deliberate manipulation of company's profits to sub-optimal or satisficing levels.

An alternative comparison of companies' performances using preset marketing strategies and overseas tender success rates poses similar problems as this analysis is dependent on the characteristics of each country where the construction firms have their operations. Even if the complexities above can be circumvented meaningfully, there remains the question of how such confidential information may be obtained from a representative sample of firms involved with construction projects overseas. Detailed information of this nature can neither be aggregated nor extracted from companies' published accounts and annual reports.

In the face of all these obstacles encountered in relating companies' performances

with specific marketing strategies, it gradually dawned in the course of this research study that, where possible, such an approach should not take centre-stage. While investigating the possibility of a link between the successful construction companies and their development and implementation of appropriate corporate strategies, Carlisle (1987) has showed that the importance appears to exist not between a particular strategy and success but between having a strategy and success. Successful firms tend to be those which had set themselves objectives and adopted a strategic approach which they felt would help them achieve their objectives.

In the light of this discourse, an alternative three-pronged research strategy was subsequently designed to avoid the problems discussed above. This will be dealt with in greater details later in Section 1.8.

## 1.5. ECONOMICS AND MARKETING

Traditionally, marketing has not been featured in economic terms until quite recent times. It would seem that this neglect could have been a result of the lack of reconciliation between two supposedly different and diverse but closely related disciplines. In so far as marketing has been mobilised in practically every economic exchange, it has however been invoked in a manner which both Anderson (1970) and Bell (1972) have earlier described as a passive, self-adjusting and self-generating mechanism within the human ecological system. Familiarity with marketing practices in commerce and trade, it would seem, has tended to lead one to accept the marketing notion as a second to nature phenomenon around which society evolves, and for it to be relegated consequently to a position of reduced significance. It has been observed during the preliminary stages of this research study that quite frequently, marketing has not been given favourable consideration within the contracting sector of the construction industry. Some argued that it is ultimately price which determines who wins the contract at the end of the day. Furthermore, there are also claims that production is what really matters and marketing therefore needs to be isolated and, at best, considered separately from the economic factors of production.

The study of economics has its validity in situations of resource scarcity and insatiable demand, in what Colberg, Forbush and Whitaker Jr. (1970) have described as the study of the optimal use of scarce resources to satisfy human wants. Conventionally, management and organisation theories have tended to view optimality in profit terms through the efficient and productive handling and allocation of factors of production for the fulfilment of both the producers' and consumers' needs. Yet marketing, as previously defined, is a management process which seeks to identify, anticipate and satisfy customers' requirements at a profit. The holistic linkages between marketing, management and economics may seem to be obvious if it can be appreciated that the successful initiation of any one discipline appears to involve the other two. This constitutes a framework where the three disciplines may need to be adapted appropriately for any entrepreneurial system to

function effectively. It would be myopic if marketing is delineated from economics and vice versa in situations where other aspects such as pricing or production are perceived to be more important and hence are accorded fundamental importance and priority. As Risley (1972) has noted,

> "Marketing, born of economics, was first recognised just after the turn of the century, in the early 1900s. This was followed by an increasingly rapid development, particularly since the 1920s, although, for the most part, marketing was viewed as being consumer marketing (Risley, 1972:4)".

Revzan (1965) similarly states that the marketing system cannot be segmented and considered effectively apart from its relationship with the whole economy. Likewise, Rodger (1965) argues that the problems of marketing have been and are essentially economic problems. Both marketing and economics are basically concerned with what goes on in the market-place and with the allocation of scarce resources among alternative uses so that returns may be optimised. Rodger (1965) also suggests that while the economist may make certain assumptions as to market organisations, it was the task of the marketer to try to organise and change the market in ways which are advantageous to the individual firm. Hence, economists and marketers tend to approach the prevailing common grounds in both disciplines from different perspectives. The economist has a traditional tendency to trek along the macro aspects towards studies of the entire national economy. The marketer, on the other hand, has a preference for the micro approach and to first start with the individual firm to understand its specific marketing problems before prescribing practical solutions to these problems. However, it would appear that in recent times, both the macro and micro approaches have been adopted interchangeably. While economists have begun to show interests in individual firms, marketers have also contended themselves with issues of evergrowing magnitude. With the rapid technological advances made in communications and transportation, markets are no longer confined to within national boundaries or to the place where the firm first originated. As in the case of construction contracting, recent expansion has evolved to include markets at regional, national and global levels with a corresponding need for the marketer to delve into macroeconomic issues.

The growing complexity in this direction will inevitably magnify complications already innate in the marketing field, problems which Hague (1969) has referred to strictly as one of resource allocation. In a review of the marketing environment, Dawson (1979) concludes that marketing is, and will continue to be for some time, a vital activity of all communist, capitalist, subsistence and post-industrial societies. While Dawson (1979) has not specifically contemplated the effects of different market systems, the significant role of marketing nonetheless seems to hinge on the relative strengths of both the demand and supply situations within any economic system. In an abundant society where competition is intense, marketing appears to

has greater relevance and importance for the seller in the "buyer's market". On the contrary, a monopolistic and, to a certain extent, an oligopolistic market tend to give rise to a "seller's market" within which the marketing function takes on a diminished role. As Risley (1972) has observed, under conditions of true scarcity where demand is greater than either supply or the productive capacity, then there is no real competition and the need for marketing does not arise. Competition per se, Risley (1972) argues, is based on surplus, not scarcity. One would, however, be unlikely to find monopolistic parameters within the construction contracting industry unless a firm possesses unique comparative or differential advantages of a political, economic, social or technical nature and at the same time, able to satisfy the accountability notion in both publicly and privately funded projects. This would seem to be the case in international construction contracting which involves firms from different nationalities, each possessing different advantages and offering varying degrees of sophistication as depicted in the OLI Model adopted by Seymour (1986). Yet this does not appear to be a sound generalisation as Seymour (1986) has repeatedly made references to the keen competition faced within the international construction contracting industry. Seymour (1986), however, claims that marketing is more atuned for the manufacturing industry than in international construction contracting. This seems to digress sharply with Hague's (1969) belief which suggests that marketing is concerned with every aspects of a business. As to why marketing has not been studied within the context of economics or vice versa to any significant extent, Rodger (1965) posits that

> "The degree to which marketing has been studied or felt to have been a worthwhile subject for separate study has depended to a large extent on the relative strength of prevailing economic forces. So long as the basic economic problem was and, for vast areas of the world, still is one of 'how to produce enough', marketing was assumed to be an automatic process requiring little consideration beyond the fact that it had something to do with how products were finally distributed, used up, or consumed (Rodger, 1965:15)".

In an attempt to integrate marketing within the economy, Rodger (1965) has also noted three situations where the significance of marketing tends to be diminished. Firstly, this occurs so long as economics is concerned predominately with the problem of allocating what have already been produced rather than what the consumers want; secondly, when producers are preoccupied with production problems rather than gearing their products to the changing needs of the customers and; thirdly, when the general standard of living is such that the majority within a society is at subsistence level, prioritizes only the basic necessities and has little or no discretionary income to select alternative purchases.

It may also seem justifiable to attribute the concentration of economics in production to the influence of classical economic theorists and in particular, Adam Smith (1776) and his followers, who have advocated the principle of the division of labour as the

single most important fact of economic life which subsequently gave rise to the specialisation of human activities, the ability to mass-produce, the need to exchange products and the development of both the value and monetary mechanisms through which such exchanges can be facilitated. This seems to have masked the significance of marketing which led to its omission in economic development. As Abbott (1967) argues,

> "In part, this neglect may reflect a traditional reluctance to enter into the details of marketing on the part of general economists who still carry over the classical view that production is what matters (Abbott, 1967:393)".

## 1.6. MARKETING AND THE FIRM

At the microeconomic level, it has been possible to link marketing with the management functions of a company. Their interactive relationship seems to point to a need for business objectives to be set before marketing, economic and management policies and strategies can be formulated in profitability or growth terms. A condition frequently overlooked by writers in this direction, it would appear, relates to their failure to appreciate the different processes carried out by existing firms and newly incorporated companies. It would seem that by starting anew in the latter case, decision-making will not be hindered unduly by entrenched practices which, if not cumbersome, may prove difficult to arrest. In general terms, growth and profit maximisation have often been accepted as the two main objectives in the business world. The businessman is therefore assumed to pursue only optimal solutions for each problem encountered. This economic perspective of growth and profitability appears to have been miscontrued over time. Hague (1969), for instance, notes that

> "For over a century, the basic assumption of economic theory has been that businessmen have only one aim : to make as many (sic) money profit as they can. Economic theory has also assumed that every firm is a one-man firm, run by its owner, who is described in economic theory as 'the entrepreneur'. Put as baldly as this, these two basic assumptions probably make all economic theorists look like lunatics. First, firms do not continually seek maximum profit, though clearly profit is important. Second, most large firms, and they account for a large percentage of industrial and commercial activity in all developed countries, are run by salaried managers whose interests may, and often do, differ from those of shareholders. The typical modern firm is run by a group of managers, not by a one-man entrepreneur. As a description of the modern business world, the assumptions of economic theory are, quite simply, wrong (Hague, 1969:28)".

The implication above is of significant relevance in the study of marketing organisations in international construction firms.

On the question of growth within construction firms, Birrell and Jouini (1984) have considered the dilemma of the entrepreneur, in what they have described as the construction contractor's managerial "hiccup" as he evolves from a one-man operation to an organised company. Likewise, when investigating the performances

of companies in the construction industry, Carlisle (1987) has also considered both management-orientated and shareholder-orientated performance standards using growth in turnover and growth in capital employed respectively.

In relating marketing and strategic planning to the theory of the firm, Anderson (1982) has classified the corresponding economic perspectives into the Neoclassical Model, the Agency Costs Model and the Market Value Model within which profitability, growth and investment were categorically referenced. The distinction between management and ownership and the presence of different interest groups within the modern enterprise seem to have subsequently led Anderson (1982) to the behavioural theories first propounded by Cyert and March (1963). Proponents of the Behavioural Model have reasoned that the presence of different interest groups tends to give rise to coalitions both within and outside the firm. The decision-making process can therefore be seen to operate within a negotiative framework between coalitions. As an extension, the Resource Dependence Model seems to suggest that the final decision-making process is dependent on the ability of individual coalition to procure the necessary resources to influence and manipulate that decision. Both economics and behavioural theories operating within the context of the firm appear to provide the background for marketing functions to affect other constituencies of the firm which operate in the colluding forms of production, finance, and personnel, etc. Hague (1969), nevertheless, acknowledges that this does not necessarily mean that marketing is the most important function in a business. It does however mean that the firm's top management must be sure that the firm is so organised that marketing problems are seen as problems of the entire firm. This is because the effects of marketing decisions are bound to be felt throughout the whole firm. From a constituency-based perspective, Anderson (1982) has further suggested the reconciliation of marketing with the various coalitions in order to incorporate the concept into long-term strategies and that

> "marketing's role in strategic planning must be that of a strong advocate for the marketing concept. Moreover, its advocacy will be enhanced to the extent that it effectively communicates the true meaning of the marketing concept in terms that are comprehensible to other coalitions in the firm. This requires an intimate knowledge of the interests, viewpoints and decision processes of these groups (Anderson, 1982:24)".

The transition from an emphasis on production to selling and, of late, to marketing and marketing control has been noticed by some writers.

With specific reference to construction firms, Hillebrandt (1984) has observed that like most other industries, the construction industries would certainly like to have more influence over the level of demand for its products and services through its pricing policies, publicity and effective marketing. What seems to be more important than general marketing operations, however, is the need for the industry to find out more about the clients' needs in matters of time, cost and organisation, and to change

the packages that it offers, where necessary, to meet their requirements. The totality of marketing efforts expended by construction firms appears to be more fruitful as they are better able to reach the individual decision-maker and favourably influence him to undertake a specific project in contrast to general publicity that may not necessarily concern him. The role and applicability of marketing within the UK construction industry was only addressed in the late 1960s. It is also worth noting the effects of an apparent shift in the industry away from open-tendering towards a selective and negotiative approach since the Banwell Committee's (1964) report in the 1960s. This would seem to signify a greater role for marketing as a result of the need for prequalification long before even considering whether a bid can be submitted.

Nevertheless, although construction firms may have adopted the marketing concept, Bell (1981) has showed in his study of marketing within the larger UK construction firms that they do not appear to have understood fully its principles, functions and how these can be incorporated to help achieve the company's organisational objectives. Likewise, Wheeler and Phua (1987) have carried out a study of the marketing practices of building contractors in Singapore and, in their comparative analyses, have concluded that there are many similarities between the marketing practices of construction firms in the UK and Singapore. On the basis of these works, there do not seem to be any doubt about the validity of marketing applications in the domestic construction industry.

Marketing within the context of international construction contracting, however, has not been examined to any significant extent although Moore (1984) and, in particular, Cox (1982) did consider the role of marketing in their treatise of construction firms with overseas operations. Unlike some other industries where the marketing concept has, for a long time, been extended across national boundaries, international construction marketing does not seem to has much appeal in the past. Neo (1976), for instance, has even gone to the extent to suggest that in international construction contracting, since the product is sold before it is made, the marketing function is therefore less pronounced. This appears to reflect a poor understanding of what the marketing concept entails when it could instead be extended to cover a much greater scope beyond production and sale. In a similar vein, the study of marketing for professional services has been widely acknowledged.

## 1.7. MARKETING AND ECONOMIC DEVELOPMENT

Even if marketing can be accepted as a passive, self-adjusting and self-generating mechanism, its role within economic development has, nonetheless, appeared to be a relatively unexplored area. Marketing and economic development have frequently been studied in isolation without considering the link which may exist between them. Drucker (1962), in as early as the 1960s, has commented that marketing is

> "the economy's dark continent - we know it is there, and we know it is big and that's about all (Drucker, 1962:103)".

Although politicians have universally pledged to improve the standard of living in the world, it looks as though the appropriate marketing means have not been exploited fully to achieve this objective nor considered in the right perspective within the development process. In reflecting why marketing factors have not been emphasized in economic growth, Dawson (1979) suggests that marketing industries have tended to be excluded from plans and policies aimed at upgrading levels of national or regional wealth because social scientists are unsure of the exact role of marketing within the economy. Hence, marketing industries and institutions have been ascribed specific positions in the development process only in a relatively few cases. One may, however, pause at this moment and ponder what influences marketing and economic development may have on international construction.

For most countries of the world, and in particular the developing countries, governments are concerned both with the improvements in their standards of living and the maintenance of a consistently favourable balance of payments record. To minimise and eliminate foreign exchange deficits and to refrain from perpetual reliance on imports, structural changes are often implemented within the economy for factories and the like where mass production can be instituted for import substitution. Infrastructural facilities are, in turn, required to provide channels of distributions to consumers. At the same time, the creation of employment brought about by industrialisation would generally lead to a more equitable improvement in income distribution and an increase in the standard of living which may, in turn, stimulate further demands for housing, educational facilities and other social amenities. It would, therefore, be plausible to guage the type of foreign market potentials for international construction firms on the basis of developmental stages reached in different countries. As Rostow (1969) has noted,

> "With a few exceptions, the developing nations of Asia, the Middle East, Africa and Latin America began their first purposeful stage of modernisation by concentrating their efforts in two areas : the production of manufactured goods in substitution for consumer goods imports and the creation of basic infrastructure; that is, roads, electric power, ports, education, etc. (Rostow, 1969:192)".

Despite the exploratory implications marketing may have on economic development, it appears that these have not been taken into serious account by development planners and policy-makers. Similarly, their appropriateness in denoting market potentials has not been capitalised upon to any significant degree by international construction firms. In addition to resource constraints, there seems to be a dilemma in deciding whether production should precede marketing in the forms of infrastructural distribution networks and vice versa, or whether the two should be synchronised within the development programme. The consequences of untimely decisions can be dire. As Sherbini (1965) has pointed out,

> "Industrialisation has lured many underdeveloped countries as the fastest and surest method of economic development. But marketing problems are causing unexpected difficulties in many of these countries - difficulties that were not anticipated because production has been seen as almost the only problem (Sherbini, 1965:28)".

Attention to this issue has been raised by Drucker (1958) in as early as the 1950s. In what has been acclaimed by many as a powerful support for development planners to provide marketing with a positive perspective in economic growth strategies, Drucker (1958) argues that

> "Marketing occupies a critical role in respect to the development of such 'growth areas'. Indeed marketing is the most important 'multiplier' of such development. It is in itself in every one of these areas the least developed, the most backward part of the economic system. Its development, above all others, makes possible economic integration and the fullest utilization of whatever assets and productive capacity an economy already possesses. It mobilizes latent economic energy (Drucker, 1958:253)".

While construction may have been exploited as a national stop-go economic regulator for some countries of the world, the subtle role of marketing in searching for potential construction markets does not seem to has been recognised widely. However, there is evidence to believe that this subtlety has in fact been put into practice, albeit in a passive manner. In this context, there appears to be two situations where the marketing role may come into being. Firstly, international construction firms which are contemplating entry into foreign markets may well be able to recognise, to a certain extent, the nature of work in demand by individual host country by relating the ongoing industrial development with its corresponding infrastructural requirements in marketing terms. Secondly, while developing host countries may be desirous of the services of foreign construction firms to hasten their pace of industrialisation and development, they are also at the same time anxious to develop their own indigeneous construction capabilities. This response seems to stem from a realisation that the continuous dependence on foreign firms does not constitute a favourable long-term proposition. By grooming one's own construction capacity, a country can, firstly, conserve its foreign exchange and, secondly, create opportunities for its indigeneous companies to eventually join the ranks of international construction firms in marketing their services to yet other countries. In the ensuing competition between construction firms from both the developed and developing countries, the latter do not seem to be unduly handicapped by their relative lack of superiority in the less sophisticated countries. As Wilson (1972) argues, this would be the case where

> "services which have 'topped out' in one industry may be an innovation in another. Similarly, the application of professional services in less well-developed overseas areas may also offer new opportunities (Wilson, 1972:150)".

There is obviously a need for any national construction industry to first establish good track records in its own domestic market before venturing overseas. Deliberate governmental efforts in nurturing its own indigeneous construction industry by handing out perks may be justifiable but nevertheless have frequently been construed and criticised by others as a disguised form of protectionism. Rostow (1969), for instance, believes that

> "In concentrating in the years ahead on the development of national markets, therefore, the developing countries will also be laying the foundations for the export of these diversified manufactures on which their future foreign exchange earning capacity will substantially rest (Rostow, 1969:199)".

In developing their own construction industries for overseas markets, governments which impose closed-door policies with a view to protecting their own industries and to avail local companies of the opportunities to build up their track records may in fact be doing more harm than good. The deprivation of an international competitive element at home may actually hinder indigeneous construction firms from developing the acute business acumen so crucially required for the future marketing of their services overseas. To this, Rostow (1969) adds that

> "For countries whose first phase of industrialization has taken place internally, behind high tariff barriers which protected the local market, a quite revolutionary shift in mentality is required before business can generate the efficiency to face the winds of international competition (Rostow , 1969:199)".

Yet the blatant adoption of an open-door policy may effectively reduce substantially the opportunities for indigeneous firms to build up their track records. This apparent contradiction does not seem to appeal much to Risley (1972) who argues that

> "In fairness to those who face and resent the competition from imports, whatever the source, let us recognise that this is a natural and logical reaction. It is natural for the businessman to love to sell abroad, but to seek protection from competition from imports in his domestic market. However one feels about it, competition is most likely to increase. The effects can be painful. Temporary measures to alleviate the pain are not apt to be long-run solutions. Facing the problem squarely and planning for the best overall solution in the long run may be difficult, but it, too, makes sense (Risley, 1972:162)".

While the marketing connotations in various developmental stages may have been referred to by some writers, the remaining issues here have often been neglected. Provided economic development and marketing can be related to one another, much can be gained in synergetic terms not only for development planners but also for construction firms operating or contemplating operations overseas where market potentials and opportunities may now be assimilated much more readily. In so far as marketing for consumer and industrial products is concerned, the link between development and marketing has been dealt with by others although the same does

not seem to be the case with construction and its relationships with both economic development and marketing proposed here. Rostow's (1960) classical review of economic development shows that a society generally tends to evolve along five stages, i.e. the Traditional Society, Pre-conditions for take-off, Take-off, Drive to maturity and the Age of high mass consumption. Within each category, different opportunities calling for various inputs to prop development seem to prevail. These, in turn, serve to provide a certain degree of fluctuation in the market potentials for all sectors of the economy. The juxtaposition of construction opportunities for contracting companies also seems to be a hallmark when development plans are announced. The relationship between development (expressed in GNP or GDP) and construction (expressed in value added terms) have been shown by Turin (1973) to correlate exceedingly well. In extending this relationship further, Drewer, Hillebrandt and Wykeham (1972) believe there are further opportunities for international trade. This contention would seem to benefit aspiring international construction contracting firms if they are able to identify and satisfy the technical sophistication desired by other countries and in using the right construction technology matrix within the categories of what Andrews, et. al. (1972) have classified as the international-modern, the national-modern, the national-conventional and the traditional frames of reference.

A continuum which appears to reflect the contracting developments within the construction industries of developing countries has been provided by Moavenzadeh and Hagopian (1984). Along this continuum, developments in contracting practices commence with foreign construction firms dominating all major building and complex civil engineering projects at a time when the indigeneous construction capability is still in its infancy stage. Particularly where there have been deliberate support from the local government to help develop the domestic industry, this gradually evolves over time to a stage where indigeneous construction contracting firms set out to undertake the major projects in joint ventures, where appropriate, with foreign firms. This continues to progress until indigeneous construction firms have eventually joined the ranks of international contractors in their search for work overseas.

However, despite the developments within this framework, the evolution of a construction firm into one with a full-fledged international capacity may not necessarily motivate the firm to market its services abroad if the risks involved and the returns from overseas do not appear to be attractive when compared with existing domestic potentials. Along these lines, Cateora (1983) has suggested four phases of a firm's involvement with international marketing - from one of ethnocentrism to polycentrism, regiocentrism and geocentrism where the large number of diverse foreign markets are considered in totality as a single global market. Nonetheless, while this may appear to be a mundane progression, the issue of aggressive marketing on a grand scale to overseas developing countries has been

criticised by Farmer (1967) to be both unethical and irrelevant when the consumers do not, firstly, have the necessary income to pay for the products or services and, secondly, due to a lack of technical know-how, have been provided with surplus products from the exporting countries which they do not really need. Although this may seem to be a shallow exhortation in today's international construction market where buyers' sophistication and competence are ever increasing, it undoubtedly raises the issue of marketing from a societal perspective.

To reiterate, the role of marketing in construction seems to hinge on two main areas which make the derivation of a single theoretical model all the more difficult. Firstly, in considering construction within the developmental context, the former has frequently been looked upon as an end in itself and described in physical terms - factories, schools, houses, offices, harbours, railways, bridges, roads, airports, etc. The role marketing has in planning what needs to be built appears to be overlooked in the process. As an analogy to Levitt's (1960) landmark assertion, it would be myopic to assume that roads, for example, are desired solely as basic infrastructural facilities for their own sake when these are in fact required to serve as marketing and distribution channels for outputs of production. Likewise, the construction of factories for production alone would be inadequate if marketing provisions have not been made spontaneously for their outputs in the forms of road networks for distribution or harbours and airports for export. Secondly, developing host countries have been known to encourage the development of their own indigeneous construction capacities. As such, there seems to be overt measures taken to improve and upgrade their domestic industries to a level of self-sufficiency and to eventually groom their own construction firms for export markets in the forseeable future.

It has been recognised that some host countries formerly at the receiving end of foreign contractors' services have responded well and local construction firms within their industries have gradually evolved in turn to take on overseas works. However, governmental actions aimed at stimulating and preparing construction firms for export marketing have not been examined to any significant extent.

## 1.8. RESEARCH FRAMEWORK, METHODOLOGIES AND OBJECTIVES

It would now be appropriate to present the thesis framework within which the primary and secondary data for this study will be collected. This has been divided into three phases as shown in Figure 1.1.

As Figure 1.1 depicts, the thesis is both encompassing and wide in scope as it includes diverse elements from the fields of marketing, construction, management and economics. This strategy has been adopted following McDonald's (1985) observation that research on international marketing does not lend itself easily to the building of mathematical models nor to basic research. McDonald (1985) has, in effect, suggested the need for multiple operations and for a collection of methods combined to avoid sharing the same weaknesses. A three-pronged approach has therefore been explored here in tandem with Phillips' and Pugh's (1987) preference for

project-based research study. Hence, the three phases denoted in Figure 1.1 can each be regarded as individual research project which bears on the commonality of

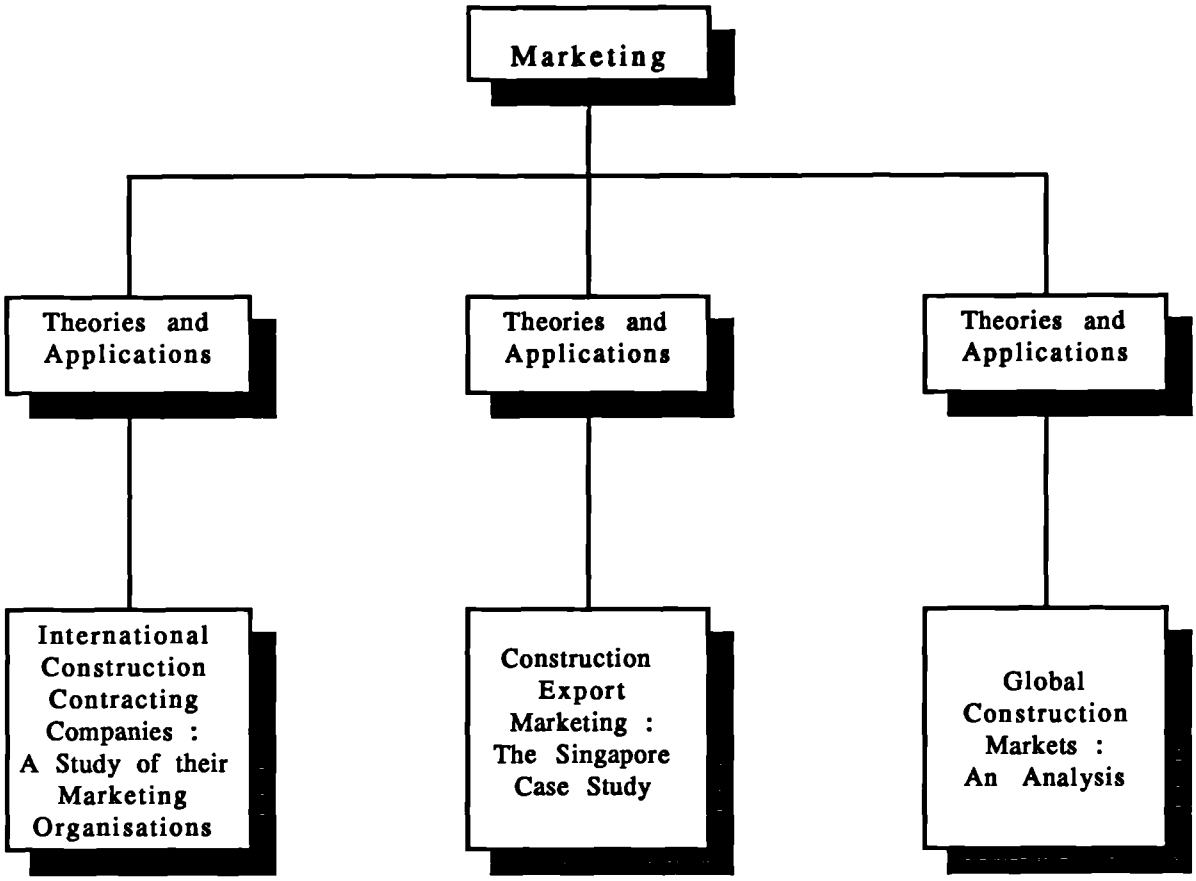



FIGURE 1.1. THE THREE-PRONGED RESEARCH FRAMEWORK

marketing. As Scott (1965) has pointed out, a field study is not a single method for gathering a single type of information. In her own investigations into organisation theories and practice, Woodward (1965) has likewise noted that a wide range of research methods was involved. Bellenger, Bernhardt and Goldstucker (1976) have similarly argued that qualitative research may not necessarily be appropriate in all situations. Quite often, its best use is in conjunction with quantitative research. On the basis of these exhortations, the research design here can therefore be seen to contain mixed elements of description, exploration and hypothesis-testing. The study has also been influenced by the marketing management process proposed by Kotler (1988) which includes :

1. Analysing marketing opportunities.
2. Researching and selecting target markets.
3. Designing marketing strategies.
4. Planning marketing programmes, and
5. Organising, implementing and controlling the marketing effort.

The three main empirical areas to be studied are as follows :

Part I

In the first instance, marketing research in international construction entails the identification of potential overseas markets and an anticipation of their associated global trends in both absolute and relative terms. This has been carried out using statistical data published by the United Nations and other international agencies. The use of computerised data-base here has helped to transform marketing from the mythical to the measurable. In the process, this has served to counteract Harvey's (1989) observation when he comments that

> "Marketing men don't understand computers. Computing professionals have little idea of what goes on in marketing. The result : one of the most important opportunities for transforming corporate fortunes has gone begging (Harvey, 1989:141)".

To facilitate comparisons between countries, construction value added in current prices, converted where necessary to United States Dollars, have been used. The data set obtained for each country is then regressed over time, firstly, on the basis of each individual country and, secondly, expressed as a percentage of the global construction volume in value added for each year. Market potentials can then be indicated by comparing the gradients of each best-fitting, least-squares lines computed for each country. It would appear from this exercise that in the assessment of construction market potentials for different countries of the world, their rankings in volume and growth terms are dependent on both their absolute and relative values established, firstly, at individual country level and, secondly, as a percentage of the entire global construction volume for each year.

Part II

As discussed earlier, it was suggested that the marketing concept may has been perceived as a passive, self-adjusting and self-generating mechanism within which various interest groups function. The second phase of this research package will be concerned with an examination of this proposition using the Singapore construction industry as a case study for the period before and after the marketing of construction services overseas was intensified. This transition will be traced from a collection of both official and unofficial reports, documented dialogues between the government and various institutional bodies concerned with construction, as well as interviews with practitioners within the industry. In effect, the study will seek to determine, among others, whether the marketing concept has been initiated on a national scale by the government to gradually nurture and groom local construction firms for ventures overseas.

Part III

The final phase of this research package will focus on a study of marketing structures and organisations adopted by UK-based international construction firms. As noted earlier, although there have been studies directed towards the domestic

aspects of marketing in the construction industry, the international marketing operations and organisations of construction firms appear to have been neglected. This, therefore, provides the setting for an investigation of UK-based construction firms in these areas of interests. The study here will involve questionnaire surveys and indepth semi-structured interviews with international construction firms based in the UK to gain a better understanding of their marketing practices and organisations. At this stage, it would seem that the organisation of international marketing operations has a tendency to lean towards the direction of an informal and intuitive approach because of the difficulties in collating appropriate information and in comprehending and utilising systematic and scientifically proven methods. To reflect this uncertainty, the so-called Contingency theory of management appears to provide a valuable contribution to a study of this nature. As Dawson (1986) points out, the

> "contingency theory provides a limited basis for diagnosis and prescription of appropriate forms of organisation, albeit with associated costs as well as benefits. To get the structure 'right' in this way should help people to operate in particular technological and environmental contexts (Dawson, 1986:133)".

Following the research framework in Figure 1.1, the three-pronged approach has been developed further to provide the chapters' outline of this thesis as given in Figure 1.2.

The main objectives of this study can therefore be enumerated as follows :

1. To review and better understand the general development and contents of marketing theories (Chapter 2) and their extension into the international markets (Chapter 3).
2. To demonstrate the relevance of marketing for the construction industry (Chapter 4) and outline the perceptions marketing has within the industry (Chapter 5).
3. To consider the various marketing practices and problems of construction exports (Chapter 6) and some of their major implications for construction companies with foreign contracting operations (Chapter 7).
4. To examine the existing theories relating to Marketing Information Systems (MKIS) (Chapter 8), the problems likely to be encountered in constructing a MKIS for the global construction industry (Chapter 9), and show how, as a first step, such an information system may actually be built to monitor and identify construction opportunities abroad (Chapter 10).
5. To synthesize the tripartite relationship between marketing, construction and economic development as proposed here (Chapter 11) and investigate the case of how the Singapore construction exports industry was similarly cultivated (Chapter 12).
6. To examine the major developments in organisation theory, understand their applications for the organisation of international marketing activities (Chapter

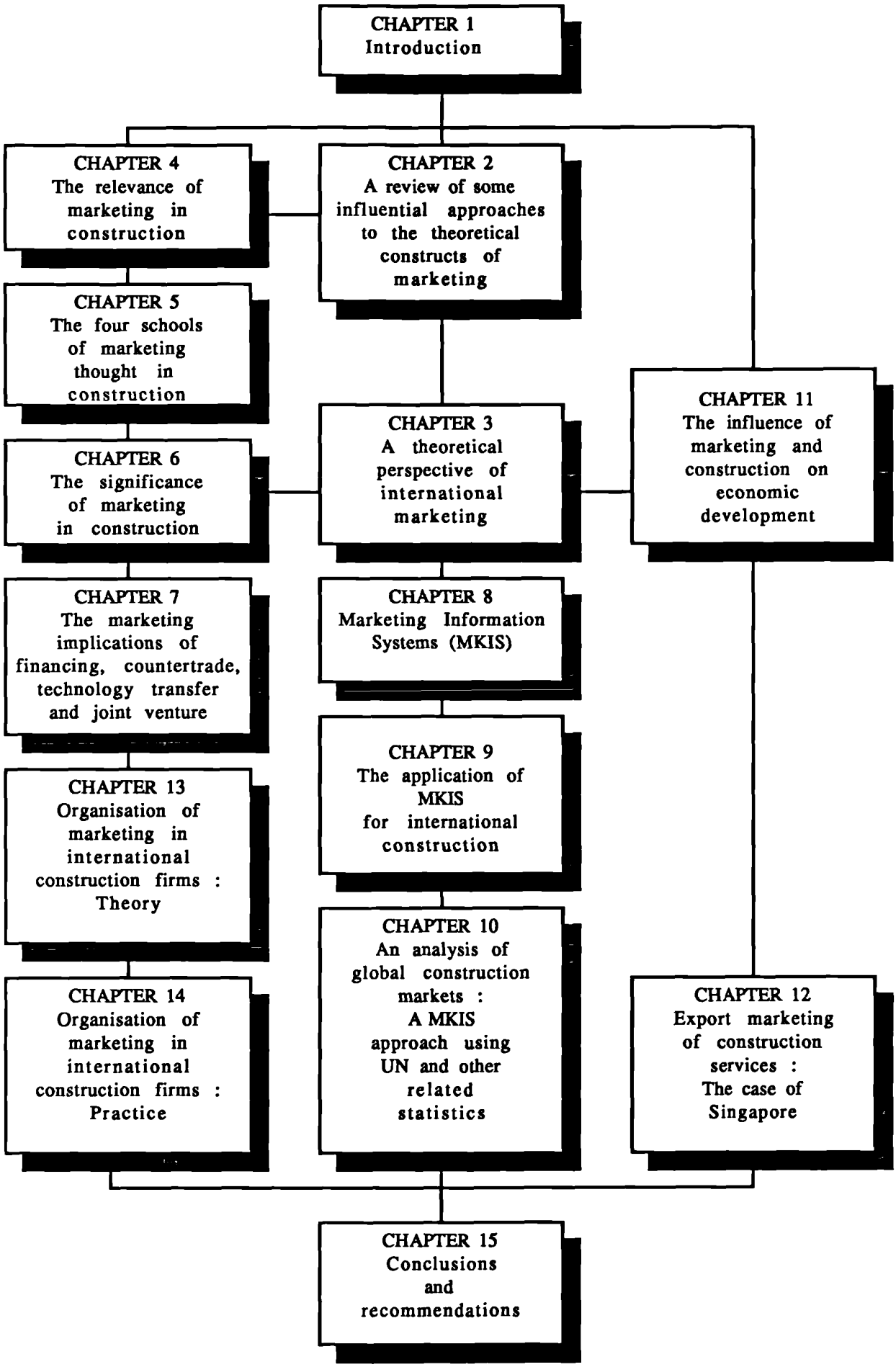



FIGURE 1.2. THESIS FRAMEWORK

13), and study how international construction firms actually structure their marketing operations for procuring overseas contracts (Chapter 14).

## 1.9. SUMMARY

Existing research studies into international construction contracting have, as yet, not considered the role of marketing within the international construction industry in detail. A three-pronged approach was therefore adopted in this thesis to examine prevailing marketing issues from the global, national and corporate perspectives. Although the marketing profession has struggled for a long time and still is struggling to provide a definition of marketing which is acceptable to everyone, the results have so far been inconclusive. Studies into the relationships between marketing strategies and success have proved to be even more daunting than envisaged. Economics and marketing, although regarded as two separate disciplines, were basically concerned with what goes on in the market place. While economists are traditionally more inclined towards studies at the national or macro level, marketers are, on the other hand, more concerned with micro issues which are of relevance to a particular firm. This dichotomy of interests is, however, less well-defined now. Studies carried out by others have shown the application of marketing within the domestic operations of construction firms. The relationship between construction, marketing and economic development is, however, still unclear.

FOOTNOTES

1 American Marketing Association, cited in L. W. Rodger, "Marketing in a competitive economy", Cassell / Associated Business Programmes (London), 1965, p. 45.

2 Institute of Marketing, cited in L. W. Rodger, "Marketing in a competitive economy", Cassell / Associated Business Programmes (London), 1965, p. 47

3 National Federation of Building Trades Employers (NFBTE), cited in P. Trench, "Marketing - Does it apply to Builders ?", Building Technology and Management, April 1969, p. 83. (The NFBTE has now been renamed The Building Employers Confederation).

4 Report of the 1970 Review Committee under the Chairmanship of Lord McFadzean, "The Queen's Award to Industry", HMSO, 1970, pp. 7-8.

5 Report of the 1975 Review Committee under the Chairmanship of HRH The Prince Philip, Duke of Edinburgh, "The Queen's Award to Industry", HMSO, 1975.

REFERENCES

1 Abbott J. C., "The Development of Marketing Institutions", in H. M. Southworth and B. F. Johnston (Eds), "Agricultural Development and Economic Growth", Cornell University Press (Ithaca), 1967, pp. 364-398.

2 Anderson D. A., "Marketing and Development : The Thailand Experience", Institute for International Business, Michigan State University, 1970.

3 Anderson P. F., "Marketing, Strategic Planning and the Theory of the Firm", Journal of Marketing, Vol. 46, Spring 1982, pp. 15-26.

4 Andrews J., et. al., "Construction and Development : A framework for research and action", University College Environmental Research Group, London (A paper prepared for the International Bank for Reconstruction and Development), May 1972.

5 Baker M. J., "Marketing : an introductory text", Macmillan Press, 1979.

6 Banwell Committee, "The Placing and Management of contracts for Building and Civil Engineering Works", HMSO, 1964.

7 Bartels R., "Development of Marketing Thought : A Brief History", in "Marketing Theory : Classic and Contemporary Readings", J. N. Sheth and D. E. Garrett (Eds), South-Western Publishing Co., 1986, pp. 190-210.

8 Bartels R., "Marketing Theory and Metatheory", Richard D. Irwin Inc., 1970.

9 Bartels R., "Are Domestic and International Marketing Dissimilar ?", Journal of Marketing, Vol. 32, July 1968, pp. 56-61.

10 Bell M., "Marketing : Concepts and Strategy", Houghton-Mifflin (Boston), 1972.

11 Bell R., "Marketing and the larger construction firms", Occasional Paper No. 2, Chartered Institute of Building, 1981.

12 Bellenger D. N., Bernhardt K. L. and Goldstucker J. L., "Qualitative Research in Marketing", American Marketing Association, Monograph Series No. 3, 1976.

13 Birrell G. S. and Jouini K., "The Construction Contractor's Managerial 'Hiccup' as he evolves from a one man operation to an organised company", Vol. 1 : Mega Projects Organisation and Management, in Proceedings of the 4th International

Symposium on Organisation and Management of construction, CIB W-65, 1984, pp. 125-133.

14 Bonoma T. V., "Marketing Performance - What Do You Expect ?", Harvard Business Review, September - October 1989, pp. 44-47.

15 Carlisle J., "Strategy and success in the construction industry", in "Managing Construction Worldwide", Vol. 2 : Productivity and human factors in construction, P. R. Lansley and P. A. Harlow (Eds), E & F N Spon, 1987, pp. 896-906.

16 Cateora P. R., "International Marketing", 5th Edition, Richard D. Irwin Inc., 1983.

17 Chartered Institute of Marketing, Quarterly Review of Marketing, Vol. 14 No. 3, Spring 1989, p. 1.

18 Colberg M. R., Forbush D. R. and Whitaker, Jr. G. R., "Business Economics", Richard D. Irwin Inc., 1970.

19 Construction Industry Training Board, "Management Training - Marketing Series", London, 1980.

20 Cox V. L., "International Construction - Marketing, Planning and Execution", Construction Press, 1982.

21 Crozier K., "What exactly is marketing ?", Quarterly Review of Marketing, Winter 1975, pp. 21-25.

22 Cunningham M. T. and Spigel R. I., "A study in successful exporting", European Journal of Marketing, Vol. 5 No. 1, Spring 1971, pp. 2-12.

23 Cyert R. M. and March J. G., "A Behavioural Theory of the Firm", Prentice-Hall, 1963.

24 Dawson J. A., "The Marketing Environment", Croom Helm Ltd. (London), 1979.

25 Dawson S., "Analysing Organisations", MacMillan Education Ltd., 1986.

26 Drewer S. P., Hillebrandt P. M. and Wykeham J. M., "The Building Industry and opportunity for international trade", Building Economics Research Unit, University College Environmental Research Group, London, September 1972.

27 Drucker P. F., "The Economy's Dark Continent", Fortune, Vol. 65 No. 4, 1962.

28 Drucker P. F., "Marketing and Economic Development", Journal of Marketing, Vol. 22, January 1958, pp. 252-259.

29 Dunning J. H., "Trade, Location of Economic Activity and the Multinational Enterprise : A search for an Eclectic Approach", in Ohlin B., Hesselborn P. O. and Wijkman P. M. (Eds.), "The International Allocation of Economic Activity", Macmillan (London), 1977, pp. 395-418.

30 Economic Committee, "The Singapore Economy : New Directions", Ministry of Trade and Industry, Republic of Singapore, February 1986.

31 Farmer R. N., "Would you want your daughter to marry a Marketing Man ?", Journal of Marketing, Vol. 31, January 1967, pp. 1-3.

32 Fisher N., "Marketing for the construction industry", Longman Group Ltd., 1986.

33 Hague D. C., "Managerial Economics : Analysis for business decisions", Longman, 1969.

34 Halbert M., "The Meaning and Sources of Marketing Theory", Marketing Science Institute Series, McGraw-Hill, 1965.

35 Harvey D., "An intelligence test for marketing", Director, June 1989, pp. 141-142.

36 Hillebrandt P. M., "Analysis of the British Construction Industry", Macmillan Publishers (London), 1984.

37 Hippo Y. and Tamura S., "Japan", in W. P. Strassmann and J. Wells (Eds), "The Global Construction Industry. Strategies for Entry, Growth and Survival", Unwin Hyman Ltd., 1988, pp. 59-85.

38 Keegan W. J., "Multinational Marketing Management", 3rd Edition, Prentice-Hall, 1984.

39 Kotler P., "Marketing Management. Analysis, Planning, Implementation and Control", Prentice-Hall, 1988.

40 Kracmar J. Z., "Marketing research in the developing countries", Praeger Publishers, 1971.

41 Kramer H. E., "International Marketing : Methodological Excellence in Practice and Theory", Management International Review, Vol. 29, 1989, pp. 59-65.

42 Kramer H. E., "In search of methodological excellence in marketing", Singapore Marketing Review, Vol. 1, March 1986, pp. 51-62.

43 Levitt T., "Marketing Myopia", Harvard Business Review, July - August 1960, pp. 24-47.

44 McDonald M. H. B., "Methodological Problems Associated with Qualitative Research : Some Observations and a Case Analysis of International Marketing Planning", International Studies of Management and Organisation, Vol. XV, No. 2, 1985, pp.19-40.

45 McFarlane G., "Scots Queen's Award Winners Don't Excel", Marketing, April 1978.

46 Moavenzadeh F. and Hagopian F., "The construction industry and economic growth", Asian National Development, June / July 1984, pp. 56-60.

47 Moore A. B., "Marketing Management in Construction : A guide for Contractors", Butterworths, 1984.

48 Neo R. B., "International Construction Contracting : A critical investigation into certain aspects of financing, capital planning and cash flow effects", Gower Press, 1976.

49 Phillips E. M. and Pugh D. S., "How to get a PhD. Managing the peaks and troughs of research", Open University Press, 1987.

50 Revzan D. A. (Ed), "Perspective for Research in Marketing : Seven Essays", Institute of Business and Economic Research, University of California, Berkeley, 1965.

51 Risley G., "Modern Industrial Marketing", McGraw-Hill, 1972.

52 Rodger L. W., "Marketing in a competitive Economy", Cassell / Associated Business Programmes (London), 1965.

53 Rostow W. W., "The Concept of a National Market and its economic growth implications", in "Marketing and Society : The Challenge", R. J. Lavidge and R. J. Holloway (Eds), American Marketing Association, 1969, pp. 192-200.

54 Rostow W. W., "The Stages of Economic Growth : A Non-communist manifesto", Cambridge University Press, 1960.

55 Scott W. R., "Field Methods in the Study of Organisations", in "Handbook of Organisations", J. G. March (Ed), Rand McNally & Company, 1965, pp. 261-304.

56 Seymour H., "International Investment in the construction industry", Unpublished PhD thesis, Department of Economics, University of Reading, October 1986.

57 Sherbini A. A., "Marketing in the industrialisation of Underdeveloped Countries", Journal of Marketing, Vol. 29, January 1965, pp. 28-32.

58 Smith A., "The Wealth of Nations", (First published 1776), Modern Library Edition, Random House Inc., New York, 1979.

59 Stallworthy E. A. and Kharbanda O. P., "International Construction and the role of project management", Gower 1985.

60 Turin D. A., "Construction and Development", Building Economics Research Unit, University College Environmental Research Group, London, September 1973.

61 Walker D., "The Professionalisation of Marketing in Britain", Unpublished PhD thesis, University of Aston in Birmingham, 1976.

62 Wheeler C. and Phua W. W., "The Marketing Practices of Building Contractors in Singapore", in "Managing Construction Worldwide", Vol. 2 : Productivity and human factors in construction, P. R. Lansley and P. A. Harlow (Eds), E & F N Spon, 1987, pp. 927-936.

63 Wilson A., "The Marketing of Professional Services", McGraw-Hill, 1972.

64 Woodward J., "Industrial Organisation : Theory and Practice", Oxford University Press, 1965.

CHAPTER TWO

# A REVIEW OF SOME INFLUENTIAL APPROACHES TO THE THEORETICAL CONSTRUCTS OF MARKETING

## 2.1. BACKGROUND

The attractiveness of a marketing theory, *per se*, has caught the attention of many marketing academics and practitioners. The theoretical constructs have, however, proved to be elusive as conceptual propositions put forth raised yet further questions and debates. Close to a century of interests in this subject has failed to provide a coherent theory of marketing acceptable to all. There is, nonetheless, a consensus that marketing concepts have drawn upon other related social science disciplines such as economics, psychology, sociology, management and, to a lesser extent, law, accounting and social anthropology. Marketing, in fact, has been viewed primarily as a field of "applied economics". Consequently, there appears to be a lack of a theoretical foundation which marketing can call its own. As a result, most of the abundant literature which deal with this subject-matter have been hesitant in adopting the notion of a "marketing theory" in their respective expositions. The use of marketing principles and concepts, as basic generalisations, is however prevalent. The treatise of marketing from both a conceptual and theoretical approach has been and still is a source of much contentious disagreements between practitioners and academicians alike. The debatable and unresolved issues of what have been disputed thus far seem to rest fundamentally with the background training and experiences of contributors who partake in these exchanges. In an exhortation of the so-called marketing relativism, Cateora (1983) notes that

> "marketing strategies and judgments are based on experience, and experience is interpreted by each marketer in terms of his or her own culture (Cateora 1983:12)".

Along similar lines, Piercy (1986) has seemingly gone as far as to suggest that the difficulties faced in defining what marketing is have been influenced somewhat by the implications from organisational power and political conflicts within which the dominant coalition perceives the importance of marketing and accordingly allocates its share of the corporate budget. Essentially, discordance arises when one's experiences within a particular discipline, and hence the attendant beliefs and propositions, fail to match up with those of others' in yet another discipline. The difficulty in relating commonalities, apart from experiences which may be generalisable, appears to give rise to a wide array of potential areas for dissatisfaction. For a start, the marketing concept itself can be looked at from two angles. Firstly, it can be approached as a philosophy, an orientation of both the organisations and individuals inculcated to fulfilling the clients' needs as the only major objective. An attitude of this nature would, therefore, inspires operating units to produce only goods and services which are saleable. Manufacturing convenience

*per se* or rather what can be produced economically is no longer the sole governing consideration. Secondly, the marketing concept can also be transformed into organisational terms, utilising various business functions such as advertising, promotion, selling, pricing, distributing, etc. Both approaches for most commercial ventures, nevertheless, seek to optimise profitability and market share. As a result of much of these issues remaining unresolved, along with a wide coverage of the marketing discipline, it becomes difficult to delineate each and every aspect in an absolute manner. There will therefore be inevitable overlaps between certain parts of the sections which follow.

The requirements of a good marketing theory must be able to withstand the tests of time and practice. In the endeavour to help marketing practitioners optimise their day-to-day managerial activities, the development of a set of principles or guidelines is undoubtedly an aim of marketing theory. Although this can never progress beyond a stage where both the risks and uncertainties may be eliminated altogether, it at least seeks to reduce the undesirable effects of judgmental errors in decision-making. Rodger (1965), in his expositions on the development of marketing theory, prescribes five requirements of good marketing theory which should :

1. Provide the means of classifying, organising and integrating information relevant to the factual world of business.
2. Provide a technique of thinking about marketing problems as well as a perspective for practical action.
3. Make available an appropriate analytical tool-kit for the solution of marketing problems.
4. Provide a basis for the explanation, prediction and, possibly, control of marketing processes and events, and
5. Lastly, permit the derivation of general principles, and possibly even laws, relating to marketing behaviour.

Rodger (1965) went on to suggest that the few existing principles enunciated in marketing are, in effect, derived and adopted from economics, the only other discipline which deals with market phenomena. Zaltman, et. al. (1982), similarly offered some thoughts in the direction of theory construction for marketing by maintaining a closely linked relationship between concepts and propositions which, in totality, offers the foundations for theoretical constructs to be built. While concepts seek to explain why certain things occur, propositions, in turn, seek to extrapolate functional relationships among concepts. Zaltman, et. al. (1982) also canvassed the value of empiricism through both the inductive and deductive approaches. While the former approach stresses the formal or informal collection of data which may eventually lead to a potential theory, the latter starts with a set of concepts and propositions before attempting to test their validity through empirical means.

The role of marketing within the U.K. has been documented exhaustively by Walker

(1976) who adopted a socio-economic approach to study its professional acceptability within the institutional context of the then Institute of Marketing and its predecessors. Walker's (1976) treatise is somewhat different from the development in the US where the marketing discipline first flowered and flourished before making its inroads into Europe. The American foundation was widely acknowledged to have its roots in the agricultural sector of the economy at the turn of this century and which evolved essentially from the distributive trades responsible for the dissemination of agricultural products. Since then, the basic fundamentals of marketing have been subjected to both interrogative questioning and progressive counter-arguments as early proponents and critics alike strive to understand and accommodate the fledgling discipline. Those who were pessimistic went as far as to query the justification for a theory of marketing, preferring to accept this only as a collection of diverse connotations drawn from various other established disciplines. This would naturally undermine its validity as marketing is now perceived as merely a methodology which borrows from other scientific disciplines such as operational research, statistics, sociology and the behavioral sciences. In order to qualify as a distinct science in its own right, Buzzell (1963) acknowledges that marketing should then correspondingly possess a classifiable and systematic body of knowledge organised around one or more central theories with a number of general principles, expressed usually in quantifiable terms, which allows the prediction and control of future events. Accordingly, Buzzell (1963) seems to accept marketing as a science even though numerous contentious issues remained unresolved. Rodger (1965), on the other hand, adopts another approach to trace the developments in marketing theory by explaining the marketing concept in terms of both form and content. While form would reflect a more objective mode postulated through functions and organisations, content tends to be abstract in its expositions of philosophy and purpose. A treatise of this nature clearly indicates the wide coverage marketing has over its interpretation, a dilemma which Kurzbard and Soldow (1987) seek to curb in their parametric attempt to define marketing. In their pleadings, Kurzbard and Soldow (1987) lament at the manner marketing has traditionally been defined to include much and exclude little, and that everyone is marketing if one were to accept the broadening concept to include all things unintentional. Furthermore, exchanges alone, Kurzbard and Soldow (1987) argue, are not the only unique basis which underpin the marketing foundation because these apply equally to other disciplines such as economics, psychology, sociology and linguistics, among others.

The debates among marketing scholars and practitioners appear to draw attention to both the fragmented and systemic approaches to marketing. While a fragmented approach is laudable in evaluating each situation on the merit of its circumstances, this does not seem to be complete without the holistic contributions of a systemic approach. The disparity between individualism as opposed to collectivism has apparently been accounted for through the taxonomy of marketing dichotomies

which developed in due course, giving rise to three distinctive paradigms, each in its own right, namely :

1. Consumer versus Industrial.
2. Products versus Services, and
3. Tangibles versus Intangibles.

The latter issues relating to tangibility, as Levitt (1981) recognises, pose considerable difficulties in relation to the other paradigms because sellers of services face special problems in convincing customers of the benefits they are receiving. This is compounded yet further when one considers that all product offerings, whether services or goods, possess a certain amount of intangibility.

## 2.2. THE ECONOMIC INFLUENCE

Risley (1972) notes that economics, as a philosophical thinking, follow closely the pervasive development of mercantilism during the colonial era between the 15th and 17th centuries as well as the doctrines of free trade in the 18th century. When competition began to be regarded as a wasteful phenomenon towards the end of the 19th century, economics consequently played an influential role in determining the allocation and use of scarce economic resources. Although both economics and marketing were predominately concerned with activities within the market place through the medium of exchange, economists have frequently failed to appreciate the interrelationship between economics and marketing. The classical focus on productivity, costs and economies of large scale production seems to account for this continuous lack of marketing interest by economists. Baker (1987) has addressed this developmental process very well when he succinctly describes the historical evolution from both the economic and marketing perspectives. The desire to optimise the use of scarce economic resources has long been an economic problem and preoccupation in community living. The division of labour, first propounded by Adam Smith, stems essentially from the manufacturing concern where improved output rates in production were sought as the mainstay to both create the need for exchange and to enhance the standard of living. This leads initially to simple mechanisation and further enhancement of labour potential through task specialisation, culminating progressively to more sophisticated and efficient mechanical devices which heralded in the Industrial Revolution. The population growth which came to be identified with the increased standard of living during this period, prompted increased demand which, in turn, lent impetus to further betterment in output and productivity. Concentration and specialisation, being consequential offshoots of the division of labour, also gave rise to the rapid development of both distribution and communication channels to bridge the growing gap between producers and consumers. This scenario characterises the era of mass production and mass consumption evident in most advanced industrialised countries of the world today.

The massive possession of wealth and power by conglomerates which have benefited

timely from the production orientation of a consumer society sets into motion legislative provisions to curb their influence through cartels and monopolies. The eventual effects of these regulatory tendencies seem to encourage diversifications as conglomerates seek to evade forseeable repercussions of non-compliance. The quickened pace of organisational and technological innovations, coupled with a slow-down in population growth in most parts of the developed world, also gave way to stagnant markets as demand fails to match up with supply for a variety of reasons. Competition through both pricing and product differentiation quickly escalates as producers adopt a selling orientation in attempts to stimulate demand through various means, but usually to no avail. This, as Baker (1987) notes, signals the beginning of a marketing orientation where only goods which are saleable, rather than goods which can be produced readily, are manufactured. Identification and satisfaction of clients' needs, hitherto, become an activity of paramount importance. The role and function of marketing within firms have therefore become significant accordingly. As has been noticeable in recent times, there has been a corresponding shift from macroeconomics to microeconomics and theory of the firm, evidence of the economist's willingness to acknowledge the marketing discipline within the narrower context of a firm, albeit passively. The economist's perspective of the firm, has, at best, remained production-oriented, as the works of Penrose ( 1980), for instance, have indicated. In any case, this appears justifiable in times of scarcity where demand far exceeds available supply and where a firm is in a monopolistic situation. The latter perhaps explains some of the enthusiastic investments undertaken by firms towards research and development in the hope of achieving innovative breakthroughs which will eventually place them in an advantageous position over competitors where product differentiation is concerned.

As noted earlier, the notion of exchange also came into being following the acceptance of the economic theory of the division of labour. Exchange, in essence, improves the assortments of goods and services held by different parties through the transfer of ownership or title. In addressing the general exchange paradigm, Bagozzi (1975) has identified the role of exchange from both the economic and utility perspectives. While the former mobilises profitabilty constructs, the latter tends to be more personalised towards individual satisfaction. Similarly, marketing exchanges may specifically invoke either one of the utilitarian, symbolic or mixed classes. Utilitarian exchange theory, as Bagozzi (1975) notes, is built on the foundation of the economic man which assumes that men are rational in their behaviour and that they have complete information regarding alternative options opened to them in their attempts to maximise their satisfaction in exchanges which are, at the same time, relatively free from external encumbrances. The combinations of both the utilitarian exchanges (where goods are exchanged in return for money or other goods) and the symbolic exchanges (involving the mutual transfer of psychological, social and other subjective benefits) give rise to the complex world of mixed

exchanges where the marketing man emerges and which assumes that :

1. Man is sometimes both rational and irrational.
2. Motivation is derived from both tangible and intangible entities as well as both internal and external forces.
3. Engagements in both utilitarian and symbolic exchanges involve considerations of both social and psychological aspects.
4. Despite the lack of information, man proceeds in a rudimentary and often unconscious evaluation of both costs and benefits in the best manner possible through the socio-economic process.
5. As a result, although man continually desires to strive for profit maximisation, he often settles for less than the optimal in his exchange, and
6. The marketing man operates in an environment which is subject to a wide array of legal, ethical, normative and coercive constraints.

The closely linked interrelationship between economics and marketing can therefore be propagated further in view of the commonalities which prevail between them. Rodger (1965), for instance, considers the principles of the division of labour and the exchange phenomenon to be equally applicable in both economics and marketing even though the original propositions have first been propounded by Adam Smith from a purely economic background in the 18th century. Similarly, the principle of diminishing returns, originally evolved from production, has a significant role to play in marketing activities. As Rodger (1965) categorically explains, marketing effort is normally intensified in the belief that more output can be sold. To a certain extent, increased marketing expenditure does seem to lead to rising sales but at a reducing rate. Beyond that point, increased inputs to marketing effort will not improve sales any further.

## 2.3. AFTERMATH OF THE "MARKETING MYOPIA"

The much acclaimed and widely quoted work of Professor Theodore Levitt of the Harvard Business School in his 1960's "Marketing Myopia" appears to lay the cornerstone where organisations are first urged to define their industries broadly in order to take advantage of growth opportunities. Levitt (1960) argues that in the context of continuous growth, companies must consistently identify and act upon the needs and desires of their customers and not to rest their laurels on the presumptive longevity of their products. The decline of the railroads in the early days, Levitt (1960) maintains, came about because operators failed to recognise themselves to be in the transportation business. Rather, holding on to the assumption that they are simply in the railroads business have resulted into the transportation needs of customers to be filled in by other options such as cars, trucks, aeroplanes and even telephones. Similarly, Hollywood was nearly ravaged by television when movie moguls defined their business incorrectly. By associating themselves with the business of cinemas rather than with entertainment, they ignored the risks of being overrun by the infiltration of televisions into the entertainment world. The four

fallacies proposed by Levitt (1960) which explained the downfall of many businesses have been followed up by Baker (1987) who notes that the inevitable cycle happened because there is :

1. Firstly, a belief in growth as a natural phenomenon of an expanding and increasingly affluent population.
2. Secondly, a belief that there is no competitive substitute for the industry's major product.
3. Thirdly, a pursuit of the economies of scale through mass production in the belief that lower unit cost will automatically lead to higher consumption and bigger overall profit, and
4. Fourthly, a preoccupation with the potential of research and development to the neglect of market needs.

As Gerwick, Jr. and Woolery (1983) have noted in the context of construction, there should exist a dynamic response to the client's needs. Construction firms, they urged, should therefore emphasise the "marketing of foundations", not the "selling of piles"; the "marketing of techniques for the mass movement of soils", not "dredging"; and the marketing of "bridges", not merely to "sell factory-made prestressed concrete girders". Baker (1987), among others, as a result, has acknowledged the "Marketing Myopia" as a single event which marked the watershed between the production / sales approach to business and the emergence of a marketing orientation.

In another Harvard Business Review paper almost a decade later, Levitt (1969) deals with the problems of operating or contemplating operations in new ventures where the dangers now lie in having a need, but no market; or a market, but no customer. Layton (1977), on the other hand, sees the myopic relevance as constituting essentially the need for lateral thinking but nonetheless accepts the view that people do not simply buy products or services. Rather, the benefits which they can derive from these products or services yield the circumstantial impetus towards purchasing decisions.

On the other hand, the influential principles expounded in "Marketing Myopia" do not appear to be absolute in every situations. As both Bennett and Cooper (1979) have pointed out, the marketing concept is not the only one concept for all firms. There are more to be uncovered beyond the marketing concept, particularly for industrial products firms where technological and production orientation may be more important than a market oriented philosophy. In quoting the cases of both Xerox and Polariod which have depended extensively on inventions and new technologies for their initial successes, Bennett and Cooper (1979) went on to argue that under these circumstances, the practice of market research would only result into "modifications" for existing products and, in most probability, "non-response" pertaining to innovations. This perhaps accounts for the Product Life Cycle concept and the strategic importance of quality and research and development in both gaining and sustaining marketing advantages.

## 2.4. APPROACHES TO THE THEORY OF MARKETING

The following subsections will attempt to provide an integration of the various major works on the theoretical aspects of marketing.

### 2.4.1. BARTELS' (1962, 1965, 1968) CONTRIBUTIONS

"The General Theory of Marketing" by Bartels (1968) represents the classical attempt to integrate all other micro theories into marketing. In his outline of the General Theory, Bartels (1968) proposes seven component sub-theories which go to make up an integrated general theory of marketing. These include :

1. Theory of Social Initiative - where consumption needs dictate production and distribution.
2. Theory of Economic (Market) Separations - where the separation of both consumers and producers in all aspects brings about conditions which affect marketing.
3. Theory of Market Roles, Expectations and Interactions - where market innovations, demand and competition reflect the functional relationships between market role behaviours and their associated discrepancies.
4. Theory of Flows and Systems - where complex marketing movements between separate markets are classifiable as series, parallel, reciprocal and duplicatory.
5. Theory of Behaviour Constraints - where marketing activity is affected by the constraints posed by political, economic, social and technical factors.
6. Theory of Social Change and Marketing Evolution - where the growth and evolution of marketing depend on the successful adaptation, both internally and externally, by the organisation.
7. Theory of Social Control of Marketing - where the emergence of a marketing mechanism is appraised and sanctioned according to both individual and collective social objectives.

Bartels' (1962, 1965) earlier work on the marketing timetable has remained unchallenged to-date and represents an authoritative documentation of how marketing thoughts have developed since the turn of the century in the US. Therein, six periods were identified between 1900 and 1960 :

1. Period of Discovery (1900 - 1910)

   Before 1900, macroeconomics theory was the principal source for explaining market behaviour and trade practices. With the infusion of scientific management theories, attention was subsequently turned away from public to private economic problems. This, however, does not provide for the applications of management science to the distributive concerns of the then predominately agricultural economy, but nonetheless supplied the necessary setting where the eventual discovery of marketing was nurtured. The activities then were only known as "trade", "distribution" or "exchange". It was only after the turn of this century that the connotation "marketing" was used and subsequently adopted in university course titles at the Universities of Pennsylvania (in 1905), Pittsburgh (in 1909) and

Wisconsin (in 1910). The focus on problems of the market place, nevertheless, remained from the standpoints of the agriculturists, psychologists and financiers.

2. Period of Conceptualisation (1910 - 1920)

This period witnessed the initial development, classification and definition of many marketing concepts which provide the structure of marketing thoughts for the next forty to fifty years. Three perspectives to the analysis of marketing activities were also identified, namely, the institutional, functional and commodity approaches; as well as repetitive elemental activities which came to be known now as advertising, selling, buying, transporting and storing. The advent of Frederick W. Taylor's classical management theories also brought forth the prerequisite management of the selling function through to the supervisory organisation of salesmen's activities and credit administration. The focus of this period remained predominately with the distribution of agricultural products.

3. Period of Integration (1920 - 1930)

This constituted the period where marketing principles were first developed and integrated into a general body of thought. The period also marked the coming of age of the marketing discipline with the appearance of two other areas of specialisation in wholesaling and marketing research. The institutional, functional and commodity studies of the previous decade were now complemented by appropriate research techniques to constitute the main body of marketing thought. The classical statement emerged, indicating marketing as an economic activity affected by the socio-economic conditions of the market. This involved the performance of basic functions by marketing establishments in the distribution of goods, and where managers operated within a social framework of governmental control and assistance.

4. Period of Development (1930 - 1940)

The moulding of marketing thought and practice during this period of time was influenced tremendously by the economic depression, urban-rural migration, the emphasis on savings and low prices, the consumer movement, governmental participation and regulation of business activities, as well as the competition faced in distribution as a result of the adoption of new marketing concepts and techniques. Although the marketing discipline started to differentiate into sub-specialities, it continued to be viewed both as a functional management area as well as a mode of economic production. Ideas which differed from the usual expositions of marketing continued to be evolved. The qualitative reliance became more quantitative gradually as scientific research methodology continued to develop and contribute to the body of knowledge.

5. Period of Reappraisal (1940 - 1950)

The disruption caused by the Second World War in between this period slowed down the development and expression of marketing thought. Nonetheless, during this period, explanations of marketing from the traditional perspective were

reappraised in the light of new marketing knowledge. The question of whether marketing thought had or should attain the status of a science started to develop. A preference for a managerial approach to the practice of marketing and its holistic interpretation within the context of the economy started to emerge. Interests were cultivated in visualising the entire operations of marketing as a single whole rather than fragmented parts.

6. Period of Reconceptualisation (1950 - 1960)

This period experienced the increased use of managerial decision-making, interests in quantitative methods, consumer behaviour as well as a realisation of the marketing impact on society. The important concept of the "marketing mix" crystallised as a reflection of marketing management's attempt to consciously manipulate variables in order to consolidate the achievement of stated sales objectives. The holistic interpretation of marketing as a broad and interrelated process with sweeping coverage continued unabated to generate much interests. The social influences graduated at the same time to comprehend comparative marketing for the assessment of marketing conditions in different environments.

In summary, Bartels' (1962, 1965) historical review indicated clearly the thinkings of men in successive periods in their respective efforts to solve the marketing problems of their days. The traditional approach throughout tended to be mechanistic, with management operating within the commodity, functional and institutional frameworks. The manipulation of variables alone ultimately became a feature of the marketing process but failed to provide an all-embracing effect. Dissatisfactions gave rise to other schools of thought, culminating eventually into the systemic approach which seeks to provide an overview of the whole marketing process. This, in turn, led to the exploration of logical structures within which any systems may be placed, invoking again, in the process, the possibility of elevating marketing to the proportion of a science. The pervasive display of marketing influences within the boundaries of practice also gave rise consequently to a wariness of their adverse effects on society and between environments if misguided. Bartels' (1962, 1965) review, however, covered only developments within the first six decades of this century.

### 2.4.2. AXIOMS OF SHETH AND GARDNER (1982)

Sheth and Gardner (1982) attempted to follow up Bartels' contributions by updating the history of marketing thought since the 1960s. In their short treatise, and despite the prevalent divergence of opinions, two axioms were identified. While the first axiom stemmed essentially from economic activity, the second axiom of consensus was derived in the main from a belief that the initiator of marketing programmes and activities was the marketer and not the consumer in the market place. Each, in turn, constitutes three related schools of thought, with the first axiom of value exchange providing for macromarketing, consumerism and the systems approach. The second axiom of power balance, on the other hand, focuses on buyer behaviour,

behavioral organisations and strategic planning. Their contributions to marketing theory are dealt with briefly as follows :

1. Macromarketing

   This school of thought will be expounded again in detail later in this chapter, suffice to say here that this represents a broadening of marketing horizons to non-economic areas of behaviour. In the attendant redefinition of marketing objectives, it indicated clearly why the uni-dimensional objective of profit maximisation may no longer be relevant for an organisation. A multi-objective function for marketing effort was instead adopted.

2. Consumerism

   The consumerism school of thought has had a greater impact on marketing practice rather than on marketing theory. Market satisfaction is now brought out as a far more important measure of marketing success than both market share and profitability. Involvement with marketing practices alone seems to generate distractive obstacles for the eventual development of a marketing theory. Sheth and Gardner (1982), nonetheless, believed that the concept of market satisfaction qualifies as one among other major constructs in the development of marketing theory.

3. Systems Approach

   The adoption of a systemic perspective has enabled the gap between marketing and science to be bridged as both quantitative and methodical procedures became popularised for simulation and optimisation purposes. The rigour involved spontaneously served to maintain a balance between the links of both the supply and demand functions. A more sophisticated portrayal of the marketing processes was achieved, yet retaining , at the same time, the marketing identity in full view of the inherent complexities.

4. Buyer Behaviour

   An understanding of buyer behaviour has proved to be pertinent for marketing purposes. However, the impact of this school of thought tends to be divisive as a result of its alienation from the marketing processes. This arises because buyer behaviour theory leans heavily towards scientific studies, drawing substantially from both psychology and social psychology. Buyer behaviorists, therefore, have a tendency to disassociate themselves from the rudiments of marketing practice, except perhaps in the case of industrial marketing where buyer behaviour is perceived to be more rational. Nonetheless, Sheth and Gardner (1982) argued that the contribution of buyer behaviour theory for the development of theoretical marketing constructs has remained significant.

5. Behavioral Organisation

   The school of behavioral organisation thought has produced a noticeable amount of work on the interdependence among organisations but has failed to make any plausible inroads into marketing. The resultant descriptive research generated,

although abundant, has not shown how the findings therein can be utilised gainfully in the marketing discipline. The emphasis of marketing objectives on both profitability and market share have led to its disassociation with the behavioral organisation school of thought which have traditionally concentrated on the institutional and functional frameworks. Nevertheless, the potential for contributions appears to remain attractive.

6. Strategic Planning

The gradual shift of attention from marketing tactics and technicalities towards strategic issues is indicative of the growing realisation and acceptability of this school of thought. The strategic approach brought forth a greater awareness of relativity in place of the more controversial view of marketing resources in absolute terms. Adaptability then became indispensable. However, as Sheth and Gardner (1982) have suggested, the integration of market research into marketing practices appears, by far, to provide the most domineering impact of the strategic planning school on marketing theory.

Sheth's and Gardner's (1982) axioms have generated six new schools of thought since Bartels' (1962, 1965) classical review of marketing history and development up to the early 1960s. These, considered in totality, effectively summed up the thinkings of marketing scholars and practitioners up till the early 1980s.

### 2.4.3. HUNT'S (1976) CATEGORICAL DICHOTOMIES

The nature and scope of marketing was also dealt with by Hunt (1976) in the later part of the 1970s following raging debates on marketing as a science and its broadening concept. In an influential paper, Hunt (1976) attempted to curb the controversies through an ambitious schema which proposed to classify all marketing phenomena, issues, problems, models, theories and research, etc., into three categorical dichotomies, namely :

1. Profit sector / Non-profit sector,
2. Micro / Macro, and
3. Positive / Normative.

Under the first category, the proposal seeks to deal with the study and activities of all profit oriented organisations as well as other entities whose stated objective is the realisation of profit in the process of economic exchange. On the other hand, the non-profit sector, as its name implies, covers the study of organisations and entities which do not have profit realisation as their stated objectives. The micro / macro dichotomy encompasses a treatise classified according to the level of aggregation. A focus on individual organisations, firms, consumers or households is indicative of the micro approach at the lower level of aggregation while the macro approach suggests marketing systems or groups of customers at the upper level. The positive / normative dichotomy deals specifically with the questions of "what marketing is ?" and "what it should be ?" respectively. Hence, positive marketing attempts to describe, explain and forecast the phenomena, activities and processes of marketing

with a view of attaining a better understanding of what actually exists. In contrast to the descriptive mode of positive marketing, the normative marketing approach adopts a prescriptive perspective which sought to advocate what marketing organisations and practitioners ought to do and what marketing systems ought to be implemented for society good.

Hunt's (1976) schema, described above, in effect provides for eight possible cells permuted from these three dichotomies. The categorisation therein, Hunt (1976) argued, at least provides the fundamental framework within which the nature and scope of marketing can be explained. The debatable issue of marketing as a science as well as the contentious broadening of the marketing concept can now be organised around this framework. Nonetheless, as Hunt (1976) has concluded, this can only, at best, serve as channels for the explanation and propagation of marketing ideas. The restriction of marketing to within the profit / micro / normative dimension may altogether be unrealistic and unreliable in practice. Recourse has to remain open with the non-profit / macro / positive paradigm.

2.4.4. RISLEY'S (1972) APPROACHES

Risley's (1972) approaches within the context of modern industrial marketing are time-linked and have been stratified simplistically into :

1. The traditional perspective,
2. More recent perspectives, and
3. Most recent perspectives.

These will be dealt with in turn as follows :

1. The traditional perspective

   Risley (1972) reported that the study of marketing development has occurred rapidly during the first half of this century from several angles, encompassing the historical, institutional and functional frameworks in the process. Risley (1972) considered the historical approach as culture inspired rather than contributing to marketing improvements because of the quick pace of both environmental and technological changes. The institutional approach, on the other hand, has been more pragmatic in considering the marketing problems of buyers and sellers in relation to their respective operations. Nonetheless, in the in-depth study of each individual institution, it fails to recognise their relationship as a whole. The functional approach sought to rectify this deficiency by the functional listing of marketing activities which typically includes buying, selling, pricing, storing, transportation, market information, packaging, advertising, promotion and finance, etc. Its corrective effect lies in the underlying assumption that the sum of all parts is greater than the whole and that a concentrated improvement of each individual function will lead to an automatic improvement of the whole. Because of its divisible appeal, the functional approach has gained momentum in the teaching syllabus as a result of its attractiveness to the analytical mind.

2. More recent perspectives

These perspectives highlight the alternatives adopted by others which, although dissimilar in their tone with the traditional approach, are not in any way radically different. The ecological, systemic and managerial routes are typical of the pursuits derived from these perspectives. The ecological approach emphasises survival, security, stability, success and satisfaction as one moves up the "passive" ladder of goals attainment by customers, operationable only in the context of organised group behaviour. Nevertheless, this approach does not seem to have gained any significant limelight in the marketing literature despite its perceived contributions to the advancement of marketing knowledge.

The systemic approach sought to relate every relevant components into a recognisable marketing system wherein their structure and interrelationships can be identified readily. Both the external and internal factors are integrated within a hierarchical framework and in the process, broaden the marketing concept which represents a spin-off from the functionalist's approach. The inherent complexities generated as a result of one's effort to encapsulate every possible components, however, seem to leave much to be desired. The recent shift of marketing literature to a managerial approach is indicative of its growing evidence as a high level management activity. This appears to be a natural outcome as responsibilities for planning, decision-making and controlling gradually come under the purview of managers. Quantitative techniques parallel this infusion but, as Risley (1972) notes, have apparently stopped short of a truly managerial approach in contributing to decision-making. Again, the emphasis seems to rest predominately with descriptive examinations of institutional operations and circumstances of the market place.

3. Most recent perspectives

Each of the approaches above have their own merits and contributions to make in modern marketing thinking. As Risley (1972) had recognised,

> "The historical approach starts us with culture; the institutional provides a start toward segmentation; the functional furthers this analysis; the ecological contributes the start of customer recognition - the 'why' of needs, wants, and desires; systems adds integration; the managerial adds perspective - all evolutionary steps blended in today's decision-making concept (Risley, 1972:16-17)".

Risley (1972) subsequently attempted a decision-making approach, a multifaceted pursuit which seeks to borrow from the strengths of each of these approaches to solve the marketing problems of the day. This constitutes a broadening effect, leaving the act of decision-making to the manager who then develops the solution within the unlimited scope thus generated, but within the test of relevancy. In considering the overall developmental process of marketing, Risley's (1972) detailed expositions subsequently led him to acknowledge that :

"Marketing, today, is no longer viewed as a set of functions, principles, or 'laws' to dictate solutions; rather, it is a point of view, a perspective, a philosophy to aid in the identification of problems, the assembly of relevant information, both quantitative and qualitative, and an aid in the attainment of the objective, improved decision making (Risley, 1972:17)".

### 2.4.5. KEITH'S (1960) REVOLUTIONARY ERAS

Keith's (1960) narrative approach to the marketing revolution within The Pillsbury Company had gained much approval from many afield in his description of how marketing has progressively been put into practice. As President of Pillsbury, Keith (1960) vividly painted the painstakingly slow process of adopting the marketing concept in his company. In so doing, this confirmed the practical relevance of marketing and subsequently enhanced its stance further among both its supporters and critics. Keith (1960) divided Pillsbury's progress in the marketing revolution into four separate eras; these are chiefly the Production era, the Sales era, the Marketing era and the Marketing Control era. This represents a paradigm which parallels closely with the classical pattern of development in the marketing revolution. The Production-oriented era, Keith (1960) notes, started with the formation of the milling company in 1869 and which continued into the 1930s. The basic emphasis then was on the excellent production resources which were made available to Pillsbury by virtue of their privileged locational position. The Sales era subsequently commenced in the 1930s with a realisation of the need to accommodate consumers' demands. For the first time, an acute attempt was made to consciously include the wants and prejudices of consumers into the business equation. The importance of dealers, wholesalers, retailers and distribution channels was heightened. It was not however until the beginning of the 1950s that the marketing era materialised, encouraged further by the groundworks laid by the sales concepts of the previous era. Marketing then permeated throughout the entire organisation. The late 1950s witnessed the impetus of a marketing control era with Pillsbury moving from a company which has adopted the marketing concept to a fully-fledged marketing company. Marketing influences came to be felt in both short term and long range company policies.

Keith's (1960) expositions represented very well the traditional notion of development and of the evolution of a one-man entrepreneurship to a multinational conglomerate. For a skilled tradesman who decides to venture on his own with limited resources, the initial concentration would undoubtedly be focused upon production as the only channel within which there is some familiarity. Assuming that the business flourishes, this would graduate progressively to a sales orientation with production taken care of by his employees. The venturer's immediate task then lies in procuring enough orders to sustain his workforce and to keep production going. With growing prosperity, competitors correspondingly began to surface. The impending threat to his market share and profitability forces him to re-think his

approach and counter-measures for repulsion. This, it would seem, marks the beginning of the marketing era.

On the other hand, this does not mean that all the firms have evolved along the dimensions proposed above. There are examples of firms which started off without any serious resource constraints unlike the case of the tradesman-turned-entrepreneur just described. The success or failure of these firms in the context of a competitive and changing market place, it would appear, depend very much on whether management decides to adopt a production, sales or marketing orientation at the onset. A timely shift of emphasis, as Keith (1960) has illustrated clearly in the Pillsbury's case, can help to turn the tide in one's favour.

Since Keith's (1960) notable contribution to the marketing discipline as seen in practice, there have been other developments along similar lines. Kotler (1980) and Oliver (1986), for instance, have expanded on this to include not only the production, sales and marketing eras, but also a societal orientation which seeks to assess the impact of marketing on both the environment and the consumer's long-term interests. Keegan (1984), on the other hand, has traced the development of the "old" marketing concept which focused on product to the "new" concept which shifted attention from product to customer. This has, in turn, evolved to the present day contemporary concept which stresses on strategic marketing issues.

## 2.5. MARKETING MIX

Most marketing texts would not fail to include the marketing mix concept in their observance of marketing planning and programmes. Ever since Borden (1964) originated the concept of the marketing mix and McCarthy (1964) popularised the use of the 4 P's (i.e. Product, Place, Price and Promotion) in the 1960s, many business plans have been built to achieve desired profitability and market share objectives through manipulations of each or a combination of the four key marketing mix components. This represents a useful functional stereotype of market behaviour as marketers strive to adopt a strategic approach in either sustaining or maintaining their competitive advantages. Despite the fact that the marketing community has already accepted the marketing mix concept, Magrath (1986) has sought to expand this further by differentiating its applications between services and the normal product elements. In a well-structured argument, using examples drawn from the fast-food industry, air cargo services and nursing home operations, Magrath (1986) maintains that in considering the marketing of services, three more P's (i.e. Personnel, Physical facilities and Process management) must be added to the existing mix. While personnel and physical assets serve as marketing surrogates for conveying the subtle services experience, process management endorses a shift towards optimisation in handling complex and peak loads through gradual industrialisation. The efforts taken to tangibilize the intangible and the avoidance of unpleasant bottlenecks by industrialising the processes, appear in many ways to be similar to those views driven home by Levitt (1981). Kotler (1986), on the other hand,

went a step further to include the politicisation factor. In the so-called megamarketing issues, Kotler (1986) urged executives to add two more P's to the four P's of marketing strategy to include both power and public relations.

A derivative of the marketing mix seems to be the product life cycle (PLC) concept, one in which Baker (1987) has maintained to be a popular and yet the most widely misunderstood theoretical construct in marketing. The PLC concept draws on the analogy between the sales growth patterns of successive products and biological life cycles. In considering the effects of new products, technological advancement through research and development becomes indispensable as innovators continue to displace, and bring to an end, existing PLCs with their new offerings. Figure 2.1 shows the four stages in the life of a typical product - introduction, growth, maturity and decline. When a product or service is first introduced, it has to, firstly, overcome the resistance put up by consumers regarding the use of new products or services and, secondly, convince consumers of their superiority over established products or services. This inherently takes time and leads to slow progress. However, once these obstacles are overcome, there is a tendency for exponential growth as the products become more visibly acceptable to consumers, often creating in the process, a spill-over effect to other markets. Again, once this effect has worn off or when long-term interest cannot be instilled, cultivated and sustained within the consuming body, the market becomes saturated as sales levelled off. It is this phase which has brought about the downfall of companies who have not recognised nor timely implemented corrective actions to boost sales through further innovations or diversifications. Products which are beyond redemption will naturally, in due course of time, commence on the downward slide of decline as shown in the fourth stage of Figure 2.1. In extending this further, the International Product Life Cycle within the framework of the theory of comparative advantage, has similarly been dealt with by both Gilligan and Hird (1986). The PLC concept, in its contribution to marketing theory, it would seem, should not be assumed to remain absolute and immune from the changing tides of time.

## 2.6. THE BROADENING CONCEPT

Kotler and Levy (1969) created quite a stir in the late 1960s with their paper which pleaded for a broadening of the marketing concept. Following their controversial espousal, there were consequential debates which questioned the usefulness of broadening the concept of marketing to include, among others, non-commercial, religious and social activities such as :

1. A businessman applying for a loan from the bank.
2. A trader bribing government officials.
3. The effort of a student in impressing his mentors.
4. A suitor wooing the heart of a girl.
5. An evangelist spreading the good words of the gospel, and
6. The active service of an employee in his company's in-house club.

These activities, undeniably, reflect some of the more fundamental issues of the marketing discipline. The reasons offered by both Kotler and Levy (1969) argued for the application of marketing to both business as well as non-business organisations so long as it seems relevant to do so. In yet another influential paper, Kotler (1972) led the movement to broaden the generic concept of marketing further from

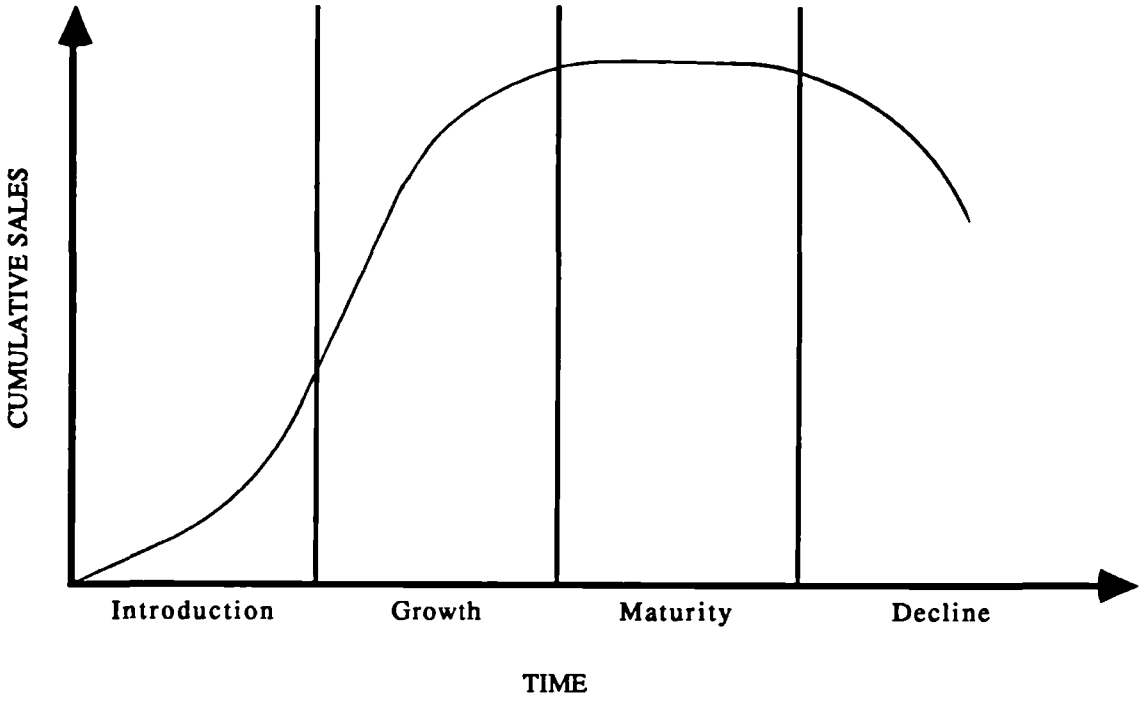



FIGURE 2.1 : THE PRODUCT LIFE CYCLE CONCEPT

business firm / customer exchange relationships, to organisation / customer exchange relationships, to organisation / client exchange relationships. This, in effect, appears to suggest the notion of societal marketing which encompasses activities of different organisations such as museums, churches, universities and political parties in a wide range of contexts as they affect society in general. Kotler (1972) believes that marketing concepts and techniques can be equally applied to better understand and manage the relationships between these organisations and their clients. This, Kotler (1972) maintains, can be explained through the evolution of the three levels of marketing consciousness. Consciousness One essentially conceptualises marketing as a business activity concerned only with buyers, sellers, economic products and services. Consciousness Two, representing the original thrust of the broadening proposition, suggests that marketing is applicable for all organisations which have customers. The proponents of Consciousness Three, on the other hand, query why the marketing concept should only be confined to within an organisation's transactions with its client group. Rightly, they argued, management engagement should not be limited to marketing activities involving only its

customers but also with its supporters, suppliers, employees, government, agents, the general and other key publics. In essence, this last level of marketing consciousness attempts to relate an organisation with not only its consuming sector of the public but also all of its publics.

The broadening effects of Kotler's and Levy's (1969) proposals have raised serious objections from numerous other marketing scholars, notably Luck (1969, 1974) who resisted on the grounds that, firstly, the concept has been broadened too far and that, secondly, in the process of cultivating a social marketing atmosphere, has created and compounded further confusion. Enis (1973), in contrast, does not appear to be perturbed by the broadening proposition apart from suggesting that the marketing concept should also be deepened so that it can be more comprehensive, better integrated and offer greater clarity in communications. Enis (1973) went a step further to classify the counter-arguments put forth by others against the broadening perspective into three categories. Firstly, it was argued that marketing, like any other disciplines, has a traditional domain within which its boundaries should be respected. As such, the procurement of bank loans should rightfully be within the province of finance while the studies of governmental corruption belongs to the political science discipline. The second argument maintained that all activities should be studied within the framework of their primary functions. Hence, the objectives of both the student and suitor, mentioned above, are not economically motivated. Although transactional activities may be generated in the process, these are more incidental than primary to the main function of their respective objectives. Thirdly, the last counter-argument asserted that where the nature of the exchange cannot be accurately predetermined, then the mainstream transaction should be excluded from the marketing discipline as well. The evangelistic outcome and the employee's contributions to his company in-house club, mentioned earlier, would accordingly be excluded from the mainstream of marketing for their lack of specificity in so far as their respective returns are concerned.

## 2.7. OTHER CONCEPTUAL APPROACHES

This section deals with, albeit briefly, several other approaches which are of conceptual interests to both the marketing scholar and practitioner.

### 2.7.1. ECOLOGICAL MARKETING

The ecological approach has long since raised speculation as to its relevance and usefulness for the marketing discipline. Although there has not been any strong resistance which oppose the validity of this approach, interest in this direction has remained relatively mild. A major reason for this lukewarm reception appears to lie in the lack of an understanding as to how this can be employed gainfully in practice. Baker (1987), for instance, has noted that the linking of both the PLC concept and biological life cycles raises the question of whether the analogy of the growth of the products and organisms at the specific level can be expanded further to include the evolution of both species and economies at a more general level. In response to the

validity or otherwise of such an approach, Baker (1987) believes that

> "At a conceptual level, this seems both possible and worthwhile. ... In other words, the cell modifies itself so that it can prosper and survive despite the constraints which had impeded its immediate predecessor. In marketing, such a phenomenon is apparent in a strategy of product rejuvenation in which either new uses or new customers are found to revitalise demand (Baker, 1987:6-7)".

In his treatise of marketing ecology in international business, Majaro (1982) had harboured similar sentiments and noted that, ecologically speaking, the arrival of a new species to a natural environment immediately places that environment in turmoil. Faced with the threats and uncertainties therein, the new species may either

1. Adjust to the entire environment,
2. Emigrate to another environment, or
3. Disintegrate and waste away.

There is, Majaro (1982) argues, therefore a link in numerous commonalities between the ecological concept and the marketing mix concept, the latter assimilating in many ways the practices of the former's operations in nature. Competitiveness in the market place, Majaro (1982) maintains, can only be attainable by fine tuning the marketing mix in relation to the environment. Just as catastrophes can happen in nature through unconscious and unsound human manipulations, failure to balance the marketing mix impact on the environment and vice versa can similarly lead to disastrous repercussions in marketing, particularly in the international arena. This would mean the adoption of an appropriate strategic approach tailor-made to match the circumstances of each particular case. However, this practice could have been so well utilised that its connection with the discipline of marketing may not has been recognised altogether. As Oliver (1986) has observed, these activities can take the following forms :

1. Build - to increase market share.
2. Hold - to maintain market share.
3. Harvest - the focus on short and medium-term profits, often at the expense of long-term market share.
4. Divest - to withdraw.

Sirgy (1984) similarly attributes the success of firms to their well-placed "ecological niche" within the market place. Ecological niching, Sirgy (1984) suggests, consists of both a "core" market where a firm's differential advantage is primarily positioned to serve, as well as a "fringe" market where the firm's differential advantage is now secondarily applied. Apart from the contentions above, several others have also adopted similar perspectives. Bell (1972), for instance, has attempted to explain marketing using an ecological analogy. Likewise, while Anderson (1970) addresses marketing as a passive, self-adjusting mechanism, Kracmar (1971) acknowledges this to be a self-generating process.

### 2.7.2. MACROMARKETING

Semantic problems, Bartels and Jenkins (1977) note, have increasingly plagued the marketing discipline. In their expositions, Bartels and Jenkins (1977) lament at the way terms such as "social marketing", "generic marketing", "demarketing" and "metamarketing" are sometimes taken to mean the same thing as "macromarketing". Through their attempt to authenticate what macromarketing is, or should be, a comparison was made with yet another term - "micromarketing". While micro theory gained popularity in the 1950s when attention was focused on managerial marketing, macro theory, on the other hand, has only been in the limelight in recent years as the concern for the social orientation and responsibility of marketing grows. In their normative approach to distinguish between the two terms, Bartels and Jenkins (1977) proceeded to define micromarketing models as "constructs of how marketing should be constructed for best achievement of the objectives of the firm". Similarly, macromarketing models are defined as "constructs of how the general marketing process should be conducted in the best interests of society".

Managerial functions, it would therefore appear, are excluded from the domain of macromarketing. Consequently, management is either ignored or confined to within the administration of public policy in macro literature. Zif (1980), on the other hand, sees similar development along the micro, macro, international and multinational dimensions and convincingly argues that when people refer to management in marketing, it would be misleading to relate this only to within the context of a firm. Management, Zif (1980) contends, is equally applicable to macromarketing when one deals with national infrastructures as well as the role of marketing in society and economic development.

### 2.7.3. COMPARATIVE MARKETING

A spin-off from both the micro and macro aspects of marketing appears to be comparative marketing which seeks to compare and contrast the utilities derived from different products and services, between firms as well as countries. Choice, it would seem, may be made wiser within a framework which provides information for the various alternatives available. Similarly, the efficiency and effectiveness of different marketing systems can be measured and compared only if meaningful data exists. This prompts Carson (1967) to raise the question of how the techniques of organising information on foreign markets into classes or groups can be used in international management. As Carson (1967) subsequently notes,

> "Perhaps more than any other business function, marketing serves as a point of reference for comparing and contrasting business systems and operations among nations (Carson, 1967:186)".

## 2.8. MARKETING'S LINK WITH PRACTICE

Despite its apparent crudeness among the perceived sophistication of advance marketing techniques, barter trade is becoming an increasingly important and

useful tool in both domestic and international marketing. Kaikati (1976), for example, recollects the reincarnation of barter trade as a marketing tool following the aftermath of four events which may have propagated its use. These are :

1. The expansion of East-West trade.
2. The financial difficulties faced by cash-strapped developing countries.
3. The energy crisis of the 1970s, and
4. Worldwide inflation and recession.

Its development to present-day countertrade status is evidence of the growing interest vested in this area. This demonstrates the flexibility as well as the willingness of firms and countries alike to accommodate creative, unfamiliar and sometimes radically different trade practices. There is therefore a need to link research and development with marketing to contain creative service arrangements and innovative high-technology product development, an assertion maintained by both Shanklin and Ryans, Jr. (1984). However, as Shanklin and Ryans, Jr. (1984) have pointed out, in corporate research and development, there is a need to test whether the new products will be acceptable in the competitive market place. Inevitably, there is a difference between high-technology that is market-driven as opposed to one that is innovation-driven. The collaborative approach to marketing, as both Rosenberg and Van West (1984) have considered, seeks to overcome these discrepancies by the marketer maintaining a long-term, mutually satisfying relationship with the client through efforts put into building credibility, involving clients in the business process and appealing to the client's highest values such as reliability, safety, ecological responsibility, and quality of life, etc. Nonetheless, internal strife frequently happens within the various departments of a firm, to the extent that both Shanklin and Ryans, Jr. (1984) have recognised the adverse effects of power plays or strained relations at the marketing - research and development interface. As a result, Piercy (1987) not only acknowledges the familiar risks arising from a "marketing myopia" but also the dangers posed by a "political myopia". Piercy (1987), in tracing the impact of scientific management theories on marketing management, has subsequently developed the politicised paradigm. Piercy (1987) argues that because management theories endorse organisational power and politics, these are imported wholesale and apply to marketing management as well. These influences are however structured according to the type of marketing information decision-makers possess. Nevertheless, far from condemning the distractions of organisational politics, Piercy (1987) seems to suggest that organisational politics, contrary to popular expectations, may in fact provide an efficient and desirable means of accomplishing organisational tasks. As noted much earlier on, Kotler's (1986) expositions of megamarketing reflect the guru's opinions that successful marketing is increasingly becoming a political exercise. In "Megamarketing", Kotler (1986) essentially deals with the problems of how marketers have overcome protectionism in both the domestic and foreign markets through a display of

influence and political power. Kotler (1986) laments that despite their unethical connotations, lobbying and bribery seem to indicate the power game marketers play to achieve marketing objectives.

## 2.9. SUMMARY

The marketing concept was suggested to have its origin in economics, the other discipline which is also concerned with the market place. Numerous contentions and debates have, however, been raised over the precise meaning and definition of marketing, what it contains or should contain, and how it can be or should be applied as a science and an art. The profession has evolved through the production and selling eras to encapsulate the marketing orientation which proponents of the "Marketing Myopia" have suggested, should not be overlooked because of myopic tendencies. The theoretical evolution of marketing may be identified within the Periods of Discovery, Conceptualisation, Integration, Development, Reappraisal and Reconceptualisation. Throughout these periods, numerous issues and concepts - including macromarketing, consumerism, systems approach, buyer behaviour, behavioural organisation, strategic planning, ecological marketing, comparative marketing, marketing mix, broadening concept, PLC concept, etc. - were introduced along with the semantic problems which accompanied the widespread use of unfamiliar marketing jargons. The marketing concept was also politicised.

REFERENCES


1 Anderson D.A., "Marketing and Development. The Thailand Experience", Institute for International Business, Michigan State University, 1970.

2 Bagozzi R.P., "Marketing as Exchange", Journal of Marketing, Vol. 39, October 1975, pp. 32-39.

3 Baker M.J. (Ed.), "The Marketing Book", Heinemann (London), 1987.

4 Bartels R., "The Development of Marketing Thought", Richard D. Irwin Inc., 1962.

5 Bartels R., "Development of Marketing Thought : A Brief History", in Schwartz G. (Ed), "Science in Marketing", John Wiley and Sons Inc., 1965, pp. 47-69.

6 Bartels R., "The General Theory of Marketing", Journal of Marketing, Vol. 32, January 1968, pp. 29-33.

7 Bartels R. and Jenkins R.L., "Macromarketing", Journal of Marketing, October 1977, pp. 17-20.

8 Bell M., "Marketing : Concepts and Strategy", Houghton-Mifflin, 1972.

9 Bennett R.C. and Cooper R.G., "Beyond the Marketing Concept", Business Horizons, June 1979, pp. 76-83.

10 Borden N., "The concept of the Marketing Mix", Journal of Advertising Research, June 1964, pp. 2-7.

11 Buzzell R.D., "Is Marketing a Science ?", Harvard Business Review, Vol. 41, January - February 1963, pp. 32-48.

12 Carson D., "Comparative Marketing - A New-Old Aid", Harvard Business Review, May-June 1967, (beginning from p. 2).

13 Cateora P.R., "International Marketing", 5th Edition, Richard D. Irwin Inc., 1983.

14 Enis B.M., "Deepening the Concept of Marketing", Journal of Marketing, Vol. 37, October 1973, pp. 57-62.

15 Gerwick Jr., B.C. and Woolery J.C., "Construction and Engineering Marketing for Major Project Services", John Wiley & Sons, 1983.

16 Gilligan C. and Hird M., "International Marketing : Strategy and Management", Croom Helm, 1986.

17 Hunt S.D., "The Nature and Scope of Marketing", Journal of Marketing, Vol. 40, July 1976, pp. 17-28.

18 Kaikati J.G., "The Reincarnation of Barter Trade as a Marketing Tool", Journal of Marketing, Vol. 40, April 1976, pp. 17-24.

19 Keegan W.J., "Multinational Marketing Management", 3rd Edition, Prentice-Hall, 1984.

20 Keith R.J., "The Marketing Revolution", Journal of Marketing, January 1960, pp. 35-38.

21 Kotler P., "Megamarketing", Harvard Business Review, March-April 1986, pp. 117-124.

22 Kotler P., "A Generic Concept of Marketing", Journal of Marketing, April 1972, pp.

46-54.

23 Kotler P., "Marketing Management. Analysis, Planning and Control", Prentice-Hall, 1980.

24 Kotler P. and Levy S.J., "Broadening the concept of marketing", Journal of Marketing, January 1969, pp. 10-15.

25 Kracmar J.Z., "Marketing Research in the Developing Countries", Praeger Publishers, 1971.

26 Kurzbard G. and Soldow G.F., "Towards a Parametric Definition of Marketing", European Journal of Marketing, Vol. 21 No. 1, 1987, pp. 37-47.

27 Layton R., "The contemporary relevance of marketing", The Singapore Manager, Singapore Institute of Management, Vol. 11 No. 2, December 1977, pp. 13-17.

28 Levitt T., "Marketing intangible products and product intangibles", Harvard Business Review, May-June 1981, pp. 94-102.

29 Levitt T., "Marketing Myopia", Harvard Business Review, Vol. 38, July - August 1960, pp. 45-56.

30 Levitt T., "The new markets - think before you leap", Harvard Business Review, May-June 1969, pp. 53-67.

31 Luck D.J., "Social Marketing : Confusion Compounded", Journal of Marketing, October 1974, pp. 70-72.

32 Luck D.J., "Broadening the Concept of Marketing - Too Far", Journal of Marketing, July 1969, pp. 53-55.

33 Magrath A.J., "When Marketing Services, 4 Ps are not enough", Business Horizons, May-June 1986, pp. 44-50.

34 Majaro S., "International Marketing. A Strategic Approach to World Markets", Revised Edition, George Allen & Unwin, 1982.

35 McCarthy E.J., "Basic Marketing : A Managerial Approach", 2nd Edition, Richard D. Irwin Inc., 1964.

36 Oliver G., "Marketing Today", 2nd Edition, Prentice-Hall International, 1986.

37 Penrose T.E., "The Theory of the Growth of the Firm", 2nd Edition, Basil Blackwell, 1980.

38 Piercy N., "Marketing Budgeting. A Political and Organisational Model", Croom Helm, 1986.

39 Piercy N., "Management Implications of the Politics of Marketing", Marketing Intelligence and Planning, Vol. 4 No. 3, 1987 , pp. 32-45.

40 Risley G., "Modern Industrial Marketing", McGraw-Hill, 1972.

41 Rodger L.W., "Marketing in a Competitive Economy", Cassell / Associated Business Programmes (London), 1965.

42 Rosenberg L.J. and Van West J.H., "The Collaborative Approach to Marketing", Business Horizons, November-December 1984, pp. 29-35.

43 Shanklin W.L. and Ryans Jr., J.K., "Organising for high-tech marketing", Harvard Business Review, November-December 1984, pp. 164-171.

44 Sheth J.N. and Gardner D.M., "History of Marketing Thought : An Update", in Bush R. and Hunt S. (Eds), "Marketing Theory : Philosophy of Science Perspectives", American Marketing Association, 1982, pp. 52-58.

45 Sirgy M.J., "Marketing as Social Behaviour : A General Systems Theory", Praeger Publishers, 1984.

46 Walker D., "The Professionalisation of Marketing in Britain", Unpublished Ph.D. thesis, University of Aston in Birmingham, 1976.

47 Zaltman G., LeMasters K. and Heffring M., "Theory Construction in Marketing : Some thoughts on thinking", John Wiley & Sons Inc., 1982.

48 Zif J., "A Managerial Approach to Macromarketing", Journal of Marketing, Vol. 44, Winter 1980, pp. 36-45.

CHAPTER THREE

A THEORETICAL PERSPECTIVE OF INTERNATIONAL MARKETING

## 3.1. THEORIES OF INTERNATIONAL TRADE

The reasons why people trade are almost limitless. Although potential economic gains is the single most influential explanation as to why trading takes place, there exists numerous other complex reasons which account for and motivate international trading activities - the neocolonialists' view of exploring the unknown and mercantile adventurism being notable examples. Other humanitarian and political motives, and the need to dispose of surplus production outputs, etc., similarly provide the impetus for trading activities. Dicken (1986), in his search for an explanation of the changing pattern of global trade, has traced the evolutionary development of international trade theories. In tandem with the expositions of many other writers on economics, this began basically with Adam Smith's "Theory of Absolute Advantage" published in 1776, which was then followed by David Ricardo's "Theory of Comparative Advantage" in 1817. The "Theory of Absolute Advantage" denotes a situation where trading commences when countries specialise only in the commodities in which they have an absolute advantage. The logic of this theoretical espousal is, however, undermined when a country has available absolute advantages for all conceivable commodities. Nonetheless, in furtherance of this cause, Ricardo's "Theory of Comparative Advantage" underpins this conceptual weakness by maintaining that a country with absolute advantages in everything can still benefit by specialising only in goods which it is most efficient in and import from other countries, goods which it has a comparative disadvantage. Hence, far from being dependent upon an absolute advantage, the criterion for trading may instead be a comparatively relative one. Dicken (1986) continues on to describe the Heckscher's (1919) and Ohlin's (1933) paradigm which queries the above for their lack of clarity in explaining why comparative cost advantages differ between countries. The H-O's Theory of Factors Endowment argument essentially suggests the export of commodities where a country's most endowed factor can be used intensively and import commodities which incorporate its least abundant factors of production. Similarly, in his work on the link between export success and marketing, Zeid (1981) goes on further to explore Stapler's and Samuelson's (1971) Theory which reminds one of the effects of protectionism on relatively scarce factors in theoretical constructs. The establishment of the General Agreement on Trade and Tariffs (GATT), it would seem, is a tacit recognition in reality of the attempts made to remove obstacles to trade.

Cateora (1983) has similarly approached the theories of international trade from both the viewpoints of absolute and comparative advantages, in what he has called the "Classical Theory of Relative Advantage". Where a country can produce a good more cheaply than another, then the first country is said to possess an absolute cost advantage. Even when one country can produce all the goods more cheaply than

another country, Cateora (1983) argues that international trade can still take place beneficially for that country by concentrating only on the goods which it can produce best and has the best comparative cost advantage. The resultant effect will be a greater total output and choice through specialisation leading to an increase in the overall standard of living. In effect, Cateora (1983) claims, much of the world trade has been focused on products in which there is comparative rather than absolute advantage. Gilligan and Hird (1986), in their work on the growth of international business, similarly advocate the theory of comparative advantage as the classical explanation for world trade where transactions between countries take place when one country is able to produce a product at a lower price than is possible elsewhere.

Adam Smith (1776) in "The Wealth of Nations" calls for the abolition of all forms of economic legislations which sanction free trade and promote protectionism. The tenets of any nation's prosperity are derived in the main from specialisation and the division of labour, a characteristic feature which Terpstra (1985) has drawn an analogy for corporate success. Specialisation, Smith (1776) notes, is nonetheless constrained by the size of the market. Outside the confines of a domestic market, however, specialisation and the economies of large scale production remain vitally important in today's global markets. The relevance of international trade theories in constructing a theoretical perspective for international marketing cannot be overemphasized. As Zeid (1981) has maintained, theories of international trade form the essential economic background for discussing exporting and international marketing. Tookey (1975) has even progressed a step further to differentiate between the geographer's explanation of why trade took place and the economist's view of the basis upon which it was undertaken. Fundamentally, geographers see trade to be a result of the endowment of different natural resources and the uneven rates of development of these resources in different regions. While Tookey (1975) argues that comparative rather than absolute advantages make trade between different countries attractive to all parties, he also acknowledges that these theories furnish only a partial explanation for the trade patterns we see today. Although important, comparative advantage is only one of the several factors which accounts for the actual flows of trade. As Terpstra (1985) has reasoned, comparative advantage was never a static phenomenon, particularly in the highly innovative technological world of today. Terpstra (1985) observes that as time goes by, some countries lose their comparative advantage and, short of losing their capabilities to export, may even need to import from other countries goods which they previously have comparative cost advantage. To maintain their economic welfare, countries have to consistently seek out comparative advantages in some other production modes.

As is the case in most of the theoretical analyses of economists, Cateora (1983) notes that the element of profit has often been neglected. This is a common enough deficiency in many theoretical constructs of international trade because goods and services will not be transported geographically unless an element of profit is

potentially in sight. Cateora (1983) goes on to suggest three areas of theoretical analysis which should be included in international trade concepts and theories. While the first area deals with the welfare economics of both the absolute and comparative cost advantage, the second covers monetary equilibrium and international balance of payments. In taking the profit element into consideration, the third area relates to the pricing mechanism through which production factors are priced in the international marketplace. Cundiff and Hilger (1984), in their theoretical approach to international business, similarly started off with the doctrine of comparative advantage where they recognised that the end result will be a higher standard of living derived from more variety and quantity of goods produced through specialisation. Cundiff and Hilger (1984), however, did not stop here. They went on to detail other alternative explanations of trade patterns, in particular, the international product life cycle concept which argues that foreign investment and marketing is a function of the evolution of a product. Others like Direct Investment Theory accounts for the flow of capital from one country to another depending on their respective marginal productivity of capital. The Theory of Interest Rate Parity explains the movement of short-term capital which corresponds to the influences of short-term interest rates' differentials and foreign exchange markets. Last, but not least, the Oligopoly Model traces the deployment of foreign investments when a firm is motivated by its desire to exploit the quasi-monopolistic edges it has in technologies or management. As Cundiff and Hilger (1984) acknowledge,

> "All these contribute to our abilities to predict, explain, and monitor the dynamic world of international marketing (Cundiff and Hilger, 1984:79)."

Kinsey (1988), however, expresses some doubts over the validity of the theory of comparative advantage as applied to international trade and claims that there remains some uncertainty because the original theoretical basis has been derived essentially from the British context during her era of industrialisation when international competition and trade barriers were virtually non-existent. The retaliatory, competitive and protectionist situation in today's North-South disparities is, however, a far cry from that era and hence undermine the basic explanation put forth by classical economists. Dicken (1986) also notes that there are several limitations associated with the traditional trade theory. Firstly, this assumes that countries have similar tastes and trade therefore arises simply as a result of differences in factor endowments. Secondly, the intensities with which these factors are used are assumed to be fixed locationally and are immobile. Lastly, despite its concern with trade between different geographical areas, the traditional trade theory takes on a spaceless stance which does not take into account the transportation costs likely to be incurred in the exchange process.

### 3.2. HISTORICAL OVERVIEW OF INTERNATIONAL TRADE

The economic evolution leading to the international trading activities of an advance

industrialised nation can be readily traced to some extent. The British context in this direction has been documented by Baker (1979) throughout the development of the craft industry in the manorial era, the concept of the division of labour and the industrial revolution. As noted above, of particular significance in economic history in 1776 is Adam Smith's account of the pin-making industry where output per man per day rose to four thousand pins with the advent of specialisation compared with only twenty pins prior to the institution of the concept of the division of labour. This turning-point coincided with the early stages of the industrial revolution which highlighted the impact of a factory economy, specialisation and mass production techniques. The industry expanded tremendously throughout the 19th century and the world demand for British products rapidly soared. As Baker (1979) notes, this period however also marked the watershed for British exporters as both the United States and countries in Western Europe geared up to become major competing industrial powers.

Cateora's (1983) historical account of world business shows similar development. In addition, Cateora (1983) has also recorded two important movements in the 15th and 16th centuries which brought about a commercial reawakening in Europe. Firstly, the Renaissance opened up an era of learning which inquired into one's environment. Secondly, the Reformation vested both political and economic power in the local government following their transfer from the Roman Catholic Church. The eventual nationalistic convergence witnessed an onslaught of mercantilism where sovereignties amassed great wealth at the expense of other countries or by exploiting colonial interests. The expansion of national power and naval forces to ply the oceans of the world was then prevalent. As Cateora (1983) subsequently notes, the dawning of the industrial revolution brought about new technologies which helped developed European industrial capacities to yet higher levels of attainment. Following this development, the doctrine of mercantilism gradually disintegrated as governments began to adopt a laissez-faire attitude for the furtherance of trading activities.

The history and theory of international marketing have also been an area of concentration for both Cundiff and Hilger (1984). International trade, Cundiff and Hilger (1984) claim, is as old as humanity itself and constitutes a significant aspect of world history. In their treatise, Cundiff and Hilger (1984) put across three stages of development, beginning with what they have called economic imperialism which encompassed both colonialism and mercantilism. This lasted till the 19th and 20th centuries when industrialisation brought forth a new pattern of trade between the predominately agriculture-based underdeveloped countries and the industrial-based developed countries following the decline of economic imperialism. Since 1960, as Cundiff and Hilger (1984) have noted, there has been a noticeable change in the pattern of world trade when producers and countries that are major world traders adopted a policy of diversification. No longer are trading activities now confined

solely to between colonies and their "mother" countries or between less-developed countries and developed economies. The major markets of the developed countries have begun trading with one another with an aim to increasing standards of living via competitive commodity prices and a wider variety of choice.

Keegan's (1984) contributions in tracing the underlying forces of international business have served to illustrate the progress of multinational marketing practices in recent times. Beginning with the international monetary framework, Keegan (1984) acknowledges the creation of the International Monetary Fund (IMF) in 1944 at Bretton Woods as a turning point which provides an international liquidity framework for the transfer of goods and services between nations. In view of a common desire to avoid returning to the discriminatory and restrictive trading practices of the 1920s and the 1930s at the height of the Great Depression, post-World War II development of the world trading system also saw the establishment of the General Agreement on Trade and Tariffs (GATT) in further attempts to liberalize trade through an institutional set of rules and principles. The global peace since 1945 and the growing markets in most domestic economies have also promoted a welcoming reception for international firms. Technological advancements in communications, like transport and data transmissions, have helped to generate further interests in trading across national boundaries. As a result, multinational corporations which pursue global business objectives have been nurtured and grown to take advantage of these basic changes outlined by Keegan (1984). Terpstra (1987) has drawn a similar scenario in his evolutionary discourse of international marketing. Among others, Terpstra (1987) observes that the global developments which have influenced international marketing included the international financial system, shifting international trade patterns, commercial policies, technology changes and strategic global competition. Brooke and Remmers (1977) have, however, considered the phenomenal growth in communications and transportation to be the most influential and enabling factor which led to the growth of foreign trade. This, coupled with the encouragement given by their respective governments in support of export activities for meeting balance of payments priorities, has spurred companies to venture even further afield in search of foreign markets. The elimination or reduction of balance of payments deficits may be undertaken by :

1. Reducing expenditures by cutting back on imports, foreign travel and foreign aid, etc., and
2. Increasing revenues through import substitution, promoting the export of goods and services, attracting foreign investors, and cultivating tourism, etc.

Baker (1979), however, believes there is limited scope in reducing expenditures if standards of living were to be maintained. Consequently, the only other alternative option is to increase revenues which, in effect, is the *raison d'etre* of international marketing. Likewise, Terpstra (1987) has noticed another phenomenon in countries with chronic balance of payments deficits. Here, international trade is nevertheless

maintained through barter and countertrade, hence elevating this ancient form of trading to an important role in "modern" international marketing practices. Terpstra (1987) has even gone as far as to suggest that the importance of countertrade in international trade and marketing will not diminish for the rest of this century. The ability to deal with countertrade practices will therefore becomes an essential part of an international marketer's skills.

The growth of reciprocal interests between industrialised countries today had led Keegan (1984) to suggest a hostage framework which determines motives and actions. As both importers and exporters at the same time, and recipients of direct investments as well as participants in foreign operations, industrialised countries are now entangled in a web of symmetrical relationships with other industrialised countries. For fear of retaliatory actions, this would mean that these countries are now hostages to their own vested interests in other developed countries. On the other hand, because the flow of direct investments and foreign operations is generally one-way, the relationships between industrialised countries and developing countries are somewhat less symmetrical in that sense. This lack of reciprocal symmetry, and hence the hostage framework, as Keegan (1984) notes, creates a less stable political and economic environment in the developing countries because of their inability to control or restrain the operations of foreign-based exporters and investors.

### 3.3. THEORETICAL DIMENSIONS OF INTERNATIONAL MARKETING

In addition to the problems already faced in the theoretical constructs of marketing, placed in an international perspective, this poses yet further uncertainties in its scope and definition. Majoro (1982) has observed two phenomena which mirror this tendency. Firstly, although the literature which deals with marketing and internationalisation is abundant, these are nonetheless isolated and treated as two entirely separate disciplines. An appreciation of marketing and internationalisation as two interrelated orientations appears to be absent. Secondly, this tendency seems to have filtered down further to practice where the interrelationship between marketing and internationalisation is frequently overlooked by management. Decisions taken to internationalise, it would appear, are consequently made without prior deliberations given to marketing.

It would also seem that beyond the boundaries of a home country, marketing has categorically evolved to assume positions of international, multinational, transnational and global dimensions. However, this is not to suggest that the operating discrepancies between, say, London and Jakarta is any more acute than those between London and some other remote locations in the British Isles. Bartels (1968) has indeed stressed that a greater degree of environmental differences may instead be found within a country than between countries. For this purpose, Bartels (1968) reasons that before "international marketing" can have a meaning, the term "marketing" itself must be understood. The link between "international" and

"marketing", in effect, only qualifies this basic process. Because trade and transactions are made across national boundaries than within different national domains, Bartels (1968) has been instrumental in adopting an "inter-national" dimension to denote the environment in which trading activities take place. Marketing, Bartels (1968) argues, consists of a technical and a social process. While the former relates to the applications of principles, rules or knowledge to the non-human aspects of marketing, the social process indicates a complex relationship between individuals as they function within the marketing system and the subsystem concerned with the distribution of goods and services.

In reviewing the nature and significance of international marketing, Bradley (1987) observes that because little endeavour has been made to advance the scientific elements of marketing, the literature tends to be descriptive, non-analytical and repetitive. Following Hawkins' (1984) assertion that

> "international business is a pot pourri of functional fields, methodologies, descriptions, occasional theorizing and conceptualizing which does not yet come together into a coherent package of received wisdom (Hawkins, 1984:13)",

Bradley (1987) continues on to suggest that international marketing is still very much a broad pluralistic and poorly integrated field of study. International marketing is therefore a discipline which draws upon a number of theories which in themselves are operationalised by practising managers in their dealings with the international environment. Bradley's (1987) review seems to yield circumstantial evidence which tends to reflect international marketing as a broad discipline made up of numerous theoretical and managerial aspects. It is therefore not a single theory which many people think it is. For this reason, and contrary to the desire for good practice, Bradley (1987) recognises that many scholars are reluctant to put forth a coherent definition of international marketing, claiming by implications that the discipline defies definition by virtue of its perceived broadness and generality. As a result, while international marketing appears to be well on its way to become a well-respected discipline, there is still a clear lack of a conceptual and theoretical framework for its guidance. Bradley (1987) goes on to conclude that, as yet, the discipline is not ready to produce many significant theories of international marketing. This can be inferred from the empirical findings of Bradley (1987) which indicate that, at best, the most advanced work in international marketing research tends to be descriptive-exploratory biased.

There are, nevertheless, scholars who have proposed their own definitions of this discipline. Cateora (1983), for instance, defines international marketing as

> "the performance of business activities that direct the flow of a company's goods and services to the consumers or users in more than one nation (Cateora, 1983:4)."

Bradley (1987), similarly, had tried to make good the shortcomings within the

discipline by offering his own definition of international marketing. With specific reference to the firm, Bradley (1987) defines international marketing as the decision processes aimed at

> "identifying needs and wants of customers, producing assets to give a differential marketing advantage, communicating information about these assets and distributing and exchanging them internationally through one or a combination of exchange transaction modalities (Bradley, 1987:208)."

Most of these definitions are, however, related to the micro aspects of a firm rather than to the macro elements of a nation's efforts directed towards exporting goods and services. Despite the lacuna here, nonetheless, there appears to be justifications to suggest that the definitive principles propounded above can be universally applicable and, hence, valid within the macro context of a national thrust in marketing abroad. Although Zeid (1981) has not pointed out the distinction between the two, he has nevertheless sorted out the differences between exporting, international marketing and international business. Baker (1979) has similarly distinguished between exporting and international marketing. Although Baker (1979) concludes that the segregation of export activities from the mainstream practices of marketing is unlikely to be useful, he prefers the term "international marketing" over "exporting" for a variety of reasons. Firstly, exporting frequently implies the sale of physical goods in a foreign country. This excludes a consideration of the variety of services or even tourism which can be a major source of revenues for some countries. Secondly, the focus of export tends to concentrate only on the procedures of channelling goods from one country to another, such as freight, insurance, payments, etc. This leads to the third reason where exporting generally obviates the infusion of alternative strategies such as licensing or foreign direct investment. By contrast, Baker (1979) argues,

> "international marketing is concerned with all marketing activities undertaken on an international scale, and so includes consideration of the cultural and behavioural aspects of foreign markets, the sale of services and the operation of overseas subsidiaries (Baker, 1979:391)."

Keegan (1984) suggests that the export behaviour of firms is essentially a developmental process which provides the basis for export profiles to be formulated. However, the probability of it evolving along the sequence of a set paradigm depends on a number of different factors. On the other hand, while exporting is looked at generally as the physical transfer of goods to foreign markets, Tookey (1975) contends that this may nonetheless be defined as the marketing of goods and services across national frontiers. As a result, Tookey (1975) reasons that

> "Export marketing is based on the same marketing principles ... and the crossing of political boundaries poses only technical problems, and does not require the formulation of new principles (Tookey, 1975:32)."

This appears to be consistent with Keegan's (1984) belief which canvasses the view that foreign marketing is merely marketing in an environment which is different from that of the home environment. Multinational marketing, Keegan (1984) defines, is therefore simply the process of focussing the resources and objectives of a firm on global market opportunities. This is essentially undertaken for two reasons. There is, firstly, the desire to expand and grow and to take advantage of the opportunities present in foreign markets. Secondly, the urgency to venture abroad may stem from a need for survival in the face of an unfavourable home market. A generally accepted criterion for defining multinationality, as Cateora (1983) has noted, is the number of countries in which the firm has business dealings with. Keegan (1984), however, has even gone a step further to distinguish the subtle differences between an international company, a multinational company and a global enterprise. He notes that

> "An international company usually means a 'national' firm operating in foreign markets. The basic orientation of an international firm is toward the home market. A multinational company is world oriented. It pursues global opportunities. ... When a multinational or an international company perceives an opportunity to serve a global market, it moves to the next stage of development - the global enterprise. The focus of the global enterprise is on serving global markets with global products (Keegan, 1984:6)."

It is therefore clear that although marketing principles are universal, the environment within which the marketer needs to practice changes drastically from country to country and over time, hence giving rise to the various problems which the discipline of international marketing sought to resolve. With this background, Brooke and Remmers (1977) have sought to achieve meaning in their studies on international marketing management by adopting a comparative approach. Nonetheless, they stressed that a comparative study is not simply a description of differences in marketing or the environment, but rather of the relationships between marketing and its environment in two or more countries. Brooke and Remmers (1977) also suggested that the findings culled from a particular study may also be applicable for countries which are in similar stages of economic development. Bartels (1968) has, however, criticised the comparative approach to the study of international marketing. The process of merely comparing differences is apparently a fruitless exercise and Bartels (1968) has hinted of the need to have a more conceptual perspective of the marketing differences as practiced in different countries.

Keegan (1984) seems to sum up the entire situation succinctly by suggesting the application of two basic concepts to international or multinational marketing. Firstly, Keegan (1984) argues that in order to succeed, the distinctive aspects which are involved in international marketing ought to be understood and adapted accordingly. The second concept relates, in essence, to the universality phenomenon. Keegan (1984) addresses this issue clear enough when he reasons that

> "In all other respects, export marketing is identical to domestic, international and multinational marketing. In other words, there is no such thing as international or multinational marketing, and there is no such thing as export marketing. There is only marketing (Keegan, 1984:492)."

## 3.4. STANDARDIZATION OF INTERNATIONAL MARKETING PRACTICES

The universality paradigm appears to has brought forth the question of whether marketing practices can be standardized throughout the whole world. In attempting this endeavour, Bartels (1968) had concluded that

> "marketing managers need to approach the international situation with expectations of both similarities and differences relative to domestic marketing, but with an understanding that both are embraced within a consistent body of marketing theory (Bartels, 1968:61)."

Bartels' (1968) assertations were followed soon afterwards by Buzzell (1968) who acknowledged the differences between nations but, nonetheless, was keen in considering the potential gains which may be attained by standardizing the various elements of the marketing programs used in different countries. Buzzell (1968) recognises the need to balance the gains of standardized marketing practices with the needs of heterogeneous foreign markets. Nevertheless, Buzzell (1968) also goes on to claim that substantial cost savings, more consistent dealings with customers, better planning and control, and the exploration of ideas with global appeal may consequently be achieved if multinational marketing practices can be standardized. In an influential paper to the Harvard Business Review, Levitt (1983) has called for the globalization of markets, stressing at the same time that the multinational corporation and the global corporation are not the same thing. Levitt (1983) argues that while the multinational corporation operates in a number of countries, and adjusts its practices and offerings in each country at relatively high costs, the global corporation sells the same thing in virtually the same way everywhere, and operates as if the entire world were a single market. For the global corporation, Levitt (1983) reasons, this has been made possible because technology has homogenized the whole globe. With the world's needs and desires homogenized irrevocably, corporations have been availed of the opportunities to sell standardized products in the same way everywhere, and Levitt (1983) goes on to give several examples, including cement, transport, telecommunications, industrial and commercial construction. Standardization holds true, Levitt (1983) postulates, because

> "If a company forces costs and prices down and pushes quality and reliability up - while maintaining reasonable concern for suitability - customers will prefer its world-standardized products. The theory holds, at this stage in the evolution of globalization, no matter what conventional market research and even common sense may suggest about different national and regional tastes, preferences, needs and institutions (Levitt, 1983:94)."

Levitt's (1983) contention lies in that the pursuit of value and quality by people in

every part of the world is a truism which hardly needs any evidence. Executives in multinational corporations, Levitt (1983) urges, should not therefore be thoughtlessly accommodating. Instead, attempts have to be made to market to customers what they really like rather than what they say they want. Two vectors, in essence, shape Levitt's (1983) vision of the world - technology and globalization. With better and cheaper transport and communication, even the more distant lands are now within the global reach of the international marketer.

There are, however, mixed reactions to Levitt's (1983) globalization vision. While this vision paves the way for revolutionary developments, it also has its share of criticisms. Terpstra (1985), for example, accuses Levitt (1983) of harbouring an unrealistic approach and argues that if global companies were able to sell the same things everywhere in the same way, then international marketing would be unduly simplified. However, the reason why this is not true, Terpstra (1985) continues, lies in the very fact that there remains decisions to be made about what and how to sell in the international markets. In a paper devoted solely to exploring Levitt's (1983) exhortations, Boddewyn, Soehl and Picard (1986) were similarly unconvinced and unreceptive to the globalization issue. They argue that Levitt's (1983) statements were hardly grounded in fact nor substantiated with adequate empirical findings to justify their validity. As such, these are more like visions which may eventually turn out to be true or made into realities at some future date. Although appreciative of Levitt's (1983) forethoughts, Boddewyn, Soehl and Picard (1986) do not seem to agree completely with his postulations. They recognised that although global competition is now rampant, standardization on the other hand may not attain a similar status. As a result, product adaptation rather than standardization is still the main feature in today's markets. Boddewyn, Soehl and Picard (1986) appear to be vexatious over what they perceived as Levitt's (1983) villainous attempt at hedging his expositions when Levitt (1983) qualifies himself by maintaining that

> "There is no one reliably right answer - no one formula by which to get it. There isn't even a satisfactory contingent answer. What works well for one company or one place may fail for another in precisely the same place, depending on the capabilities, histories, reputations, resources, and even the culture of both (Levitt, 1983:100)."

What many have failed to recognise, however, is that this qualification appears to has stemmed from Buzzell's (1968) powerful attempt to standardize multinational marketing practices some two decades ago when Buzzell's (1968) classical view looked at marketing strategy as a predominately local problem. Buzzell (1968) similarly acknowledged that the optimum strategy for a company will differ from country to country and that the best strategic design for marketing in each country should therefore be left to the local management in each individual country.

The globalization issue and its propagation within the context of international construction have also been dealt with by both Bennett and Flanagan (1988) in the

light of small home markets, improved communications and a better knowledge of investment opportunities abroad. In their treatise, they note that

> "The trend towards globalization of markets is strong, with firms exploiting worldwide market segments with standard low cost products, as well as serving different markets by customisation. An essential feature of successful globalization is the development of highly flexible systems of organisation and styles of management which meet the preferences of the variety of cultures in which a firm may operate (Bennett and Flanagan, 1988:35)".

## 3.5. INTERNATIONAL PRODUCT LIFE CYCLE (PLC) CONCEPT

In tandem with the PLC concept mentioned briefly in Chapter 2, there is a similar application of the same concept in the international arena. The International PLC concept, in effect, contributes significantly to an enhanced understanding of international marketing practices. In recognition of this, Keegan (1984) has even gone as far as to relate the PLC concept with what has been termed the Market Life Cycle (MLC) concept. While the PLC theory incorporates a cycle of introduction, growth, maturity and decline over the life of a product, the MLC concept plots the stage of each product's life cycle in various markets. This provides an enormous contribution to identifying the developmental stages of different products in every market. An appropriate recognition of these differences can lead to a conscious awareness for managing products according to the stages attained in their respective life cycles. To the extent that this phenomenon is helpful in practice, Tookey (1975) believes a firm may consequently be enabled to sell some of its older but relevant products to countries which are at earlier stages of development. As Buzzell (1968) has similarly noted, and provided history does indeed repeat itself, a predictable pattern may arise because

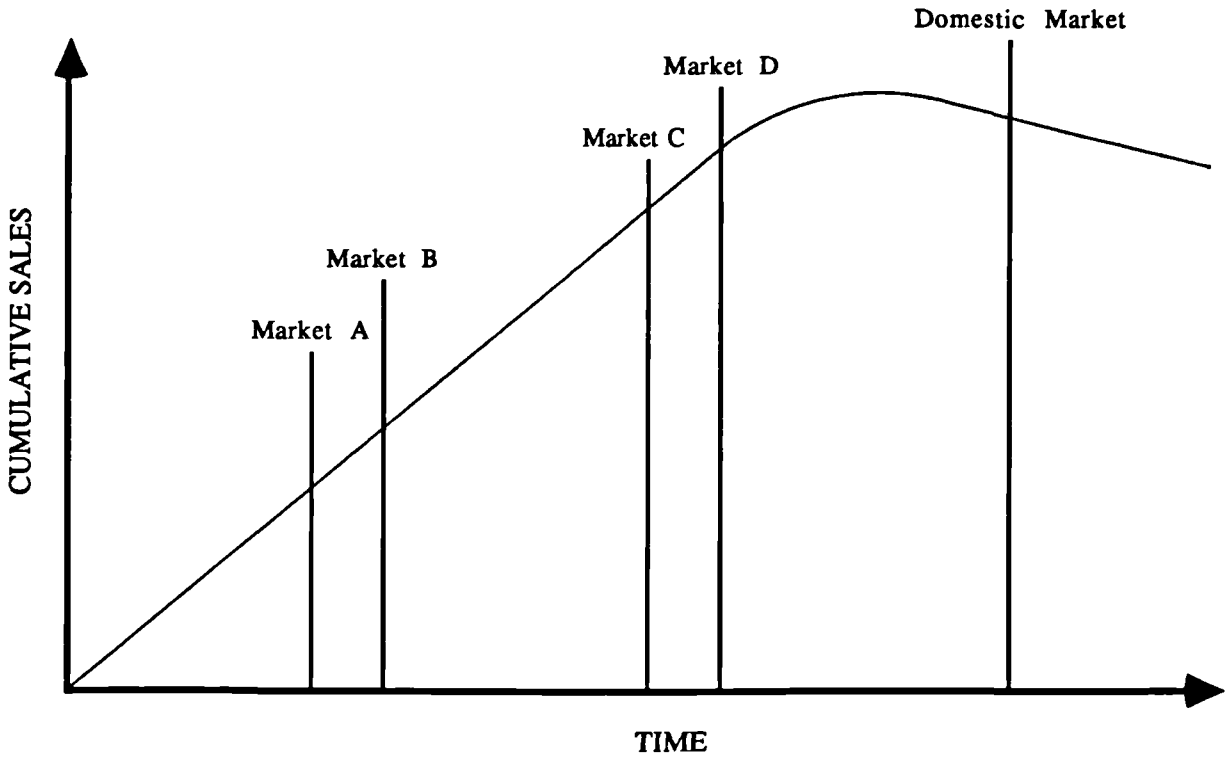
> "If products are in different stages of their life cycles in different countries, then it is tempting to conclude that marketing strategies used in the past in the more 'advanced' countries should be used in other 'follower' nations (Buzzell, 1968:111)."

Gilligan's and Hird's (1986) version of the PLC concept in international markets, depicted in Figure 3.1, has revealed products with consecutive life cycles in different countries. This has a process of product saturation, normally in an advanced industrial market, followed by product introduction and growth in a less developed country. However, with spiralling progress made in international communications, Gilligan and Hird (1986) added that the time span between product acceptance in different countries has generally been reduced. The PLC concept provides a systematic framework within which policies relating to new product development, product introduction and product elimination may be established. Its application to international marketing is of growing significance because of the diverse characteristics of life cycles in different countries and of the gradual shortening of the overall life cycle of the average product in world markets. As a result, there

appears to be immense pressure on manufacturers to continuously innovate and introduce new product offerings to their customers. Those who are able to fulfill this requirement are clearly in a much more strategically competitive position than others.

This comparative advantage, as Tookey (1975) has noted, is however not static and a country which previously has a strong position in a given industry may eventually find that position eroding away when industrial characteristics change. Based on these arguments alone, the PLC concept, as devised by marketing theorists, appears to be on a collision course of discordance with the globalization vision envisaged by Levitt (1983).

In the case of construction, Gerwick, Jr. and Woolery (1983) have also advocated the concept of product development for the purpose of marketing major construction and engineering project services. In accepting that product development ranks as




(Note the gaps between the stages reached in Market A and the Domestic Market, and the consequences for the appropriateness of any given marketing strategy.)

FIGURE 3.1 : THE DIFFERENT STAGES REACHED ON THE PRODUCT LIFE CYCLES WITHIN THE DIFFERENT MARKETS
(Source : Gilligan and Hird, 1986:160.)

one of the key elements in any one marketing programme, they also seem to acknowledge the inherently longer life cycles of construction products and technologies which stretch over a good number of years. This appears to be a phenomenon which is unique in the construction industry because of its frequently protracted period required for gestation and pay-off.

## 3.6. THE EPRG SCHEMA

Faced with the uncertainties over the application of domestic strategies to international markets, an examination of the relevance of Ethnocentrism, Polycentrism, Regiocentrism and Geocentrism (EPRG) serves to provide some guidelines to resolve these and other issues. The EPRG schema, as developed initially by Perlmutter (1969), has been adopted by Wind, Douglas and Perlmutter (1973) for developing international marketing strategies. Keegan (1984) has similarly utilised the EPRG framework to explain the forces and concepts underlying the marketing activities of multinational firms.

Ethnocentrism relates to a home country orientation which is coupled with an unconscious prejudice or belief that the home market approach is supreme over all other orientations. Contrary to ethnocentrism, polycentrism refers to a host country orientation where a belief for the total adaptation to local culture and practices prevails. While regiocentrism indicates a regional orientation, an extension towards geocentrism encompasses a conscious orientation at the global level. Apart from their differences in degree, it would not be inconsistent to suggest that both regiocentrism and geocentrism are the results of the synthesis between both the ethnocentric and polycentric orientations. While the diversities and similarities in the world are categorically acknowledged, the geocentric orientation also assumes that these can all be understood and adapted within an integrated global marketing strategy.

In the context of international construction contracting, Neo's (1975) attempt to account for the divergent orientations of different construction firms in overseas markets had inevitably invoked the EPRG framework. However, apart from a descriptive treatise of how this can influence management decisions, Neo (1975) does not seem to have recognised the marketing background and implications which go to make up the EPRG mechanism.

## 3.7. MARKETING CONNOTATIONS IN THE ECLECTIC THEORY

Dunning (1977), in the 1970s, has offered an explanation for international trading activities in what he had coined the eclectic theory which encapsulates an approach whereby the firm chooses the best possible means from among the alternative options opened for trading and production on an international scale. The eclectic theory of international production suggests that the enterprises who are most competitive in the foreign markets are likely to be those which have derived the most from internalising activities. Because advantages will differ according to circumstances,

> "enterprises will engage in the type of internalisation most suited to the factor combinations, market situations and government policies with which they are faced (Dunning, 1981:33)."

The predominant consideration for firms undertaking international production,

Dunning (1977) maintains, lies in the timely exploitation of their ownership (O), locational (L) and internalisation (I) advantages. The interaction and interdependence of the OLI components is a significant part of the eclectic paradigm. Dunning's (1977) emphasis appears to indicate two ubiquitous areas of economists' concentration. Firstly, there seems to be a projected reflection of the classical theory of relative advantage which has long been accepted to a large extent as the explanation for trading activities between nations. Preferential trading between countries, in the case of international construction in recent years, has invoked the doctrine of comparative ownership advantage. The American and European possession of highly sophisticated technology and the South Korean disciplined and skilled labour force are notable examples which account for their respective contracting successes in various parts of the world. Secondly, Dunning's (1977) expositions appear to suggest the association and bias of economists towards production.

Seymour (1987), in his study of the multinational construction industry under the pupillage of Dunning (1977), has adopted the eclectic approach to explain the motives and methods of operations of the international contractors. Seymour (1987) has leaned towards Dunning's (1977) eclectic framework in his research because of its ability to provide a general, rather than a specific, theory of the international firm. Its generality, flexibility and capacity to combine the various strands of earlier theories into one integrated paradigm has been the main criteria for Seymour's (1987) adaptation of the framework for his studies of international construction. This approach has also been endorsed by Mansfield (1988) in his work on how British contracting firms have fared in foreign construction projects compared to firms from other nationalities. Seymour (1987) suggests that a contracting firm needs to differentiate its offerings from others' in the market place if firm-specific advantages are to be generated.

Although it may be claimed that economics and marketing are two closely interwined disciplines, it seems that Seymour (1987) has nonetheless failed to realise that the generality feature which has inspired him so much parallels the universality virtues of the marketing concept which marketing theorists have extolled long even before Dunning (1977) puts across his eclectic framework. There were sporadic references made to marketing by proponents of the eclectic theory but its corresponding influences and contributions appeared to have been overlooked altogether. It would further appear that the OLI components have generally the same basic principles as the marketing mix concept (comprising of product, price, promotion and place) propounded by Borden (1964) way back in the 1960s. Differentiation, for that matter, is a derivative of the marketing mix concept. Its adoption in construction contracting has been exhorted by both Gerwick, Jr. and Woolery (1983) in their call for firms to continuously differentiate their service offerings if a marketing edge is to be achieved and sustained. Hence, while the eclectic activists have expended

considerable effort in validating their approach for explaining international trading activities, it seems that they have not seriously considered the marketing discipline which was established much earlier and how its implications might influence their theoretical constructs. Short of an exposition in this direction, it would seem that their espousal therefrom are, at best, a gesture of interests centred around the marketing concept.

3.8. WHY FIRMS VENTURE OVERSEAS ?

The reasons which account for a firm's horizontal diversification to other countries are numerous but can generally be classified into three categories. These are economic reasons, technical reasons and socio-political reasons. Although these seem obvious enough, many writers have failed to recognise this framework. Most have, understandably, a tendency to delve only into the economic aspects of international trade. Cateora (1983) has addressed this issue when he notes that the basis of all domestic and international trade has, unless inspired politically, for the most part been argued in economic terms. Along similar lines, Baker (1979) has suggested the following economic factors which predispose a firm to enter into international markets :

1. Increased competition leading to a loss of domestic market share.
2. Product obsolescence which, similarly, leads to a loss of domestic market share.
3. An inability to achieve economies of scale as a result of a saturated domestic market.
4. The provision of "push" incentives furnished by the home government and "pull" incentives offered by foreign governments to encourage investments in their national markets, and
5. The existence of potential foreign demand backed by a strong purchasing power.

Brooke's and Remmers' (1977) approach in this direction is somewhat all-encompassing. The reasons for foreign investments, they noted, can be viewed from five perspectives; namely, economic, socio-psychological, historical, commercial and organization learning. Whatever the reasons a firm may have for venturing abroad, there has to be an accrued "leverage" or advantage for the firm who is willing to operate simultaneously in more than one country. Keegan (1984) has identified seven types of "leverage" which may develop for a multinational company. These are :

1. The possibility of program transfers from actual markets to comparable markets.
2. The possibility of system transfers from existing markets to new markets.
3. Opportunities for people transfers where flexibility may be maintained from an international pool of human resources.
4. Achievement of the economies of large scale production in manufacturing.
5. The economic centralisation of functional activities.
6. Competitive utilisation of resources, and
7. Exploitation of timely global strategies.

Participation in international markets is frequently a gradual process where distinctive stages of development may often be distinguishable. The phases which culminate into international marketing involvement have been identified by Cateora (1983) who has subsequently classified them into the four categories as follows :

1. No foreign marketing : where the concentration is predominately in the domestic market with occasional interests in foreign markets only when overseas customers contact the firm directly.
2. Infrequent foreign marketing : where only the surpluses created by variations in production outputs or demand are sold overseas.
3. Regular foreign marketing : where foreign markets are looked upon in the same light as domestic markets, and where modifications are made to adapt products to suit the needs of overseas customers, and
4. World marketing operations : where firms are fully committed and involved in international marketing activities, and where each market is considered in its own merit.

Although these are four distinct phases, in reality, they frequently co-exist and firms often find themselves operating in one or a combination of these stages. Similarly firms may also operate in any one or a combination of modes for developing their foreign markets. Cateora (1983) has identified these alternative modes as follows :

1. Exporting.
2. Licensing.
3. Joint ventures.
4. Manufacturing, and
5. Management contracts following the expropriation of foreign investments by host country governments.

With the advent of aggressive international trading, the danger of expropriation in politically sensitive and nationalistic countries is very real indeed. Apart from this critical state of affairs, international firms have also to contend with a whole host of protectionist trade barriers, such as tariffs, quotas, embargoes, monetary barriers, and discriminatory standards, etc. Some comfort may, however, be derived from the global efforts directed towards easing trade restrictions. These take the forms of both trade and commercial treatises (eg. the GATT), and the development of international monetary systems (eg. the IMF).

## 3.9. SUMMARY

The theories of Absolute Advantage, Comparative Advantage and Factor Endowment have provided the main explanation for the evolution of international trade. The pros and cons of each theory can be examined in relation to colonialism, mercantilism and protectionism. Improvements made in communications and transport have furthered the impetus for growth in foreign trade, barter and countertrade. As in the general field of marketing, difficulties were likewise

encountered in the construction of a sustainable theory for international marketing. Apart from the problem of defining its exact scope, the consideration of internationalisation and marketing as two separate and different disciplines have served to compound these difficulties further. The definition of marketing is already an unresolved issue. The addition of an international element would inevitably lead to more complications. As a result, international marketing is often regarded as a broad, pluralistic and poorly integrated field of study which cannot be provided for within a single theory. Apart from some helpful concepts such as the EPRG Schema and the International PLC concept, the lack of a clear conceptual and theoretical framework for international marketing is therefore evident. A combination of both standardized practices and other adaptations appears to be the only pragmatic approach for international marketing to select the best option from among the alternatives available. International marketing can also be appreciated further through a better understanding of the reasons given by firms for venturing overseas.

REFERENCES


1 Baker M. J., "Marketing. An Introductory Text", Macmillan Press, 1979.

2 Bartels R., "Are Domestic and International Marketing Dissimilar ?", Journal of Marketing, Vol. 32, July 1968, pp. 56-61.

3 Bennett J. and Flanagan R., "Building Britain 2001", Centre for Strategic Studies in Construction, University of Reading, 1988.

4 Boddewyn J. J., Soehl R. and Picard J., "Standardization in International Marketing : Is Ted Levitt in Fact Right ?", Business Horizons, November - December 1986, pp. 69-75.

5 Borden N., "The concept of the marketing mix", Journal of Advertising Research, June 1964, pp. 2-7.

6 Bradley M. F., "Nature and Significance of International Marketing : A Review", Journal of Business Research, Vol. 15, 1987, pp. 205-219.

7 Brooke M. Z. and Remmers H. L. (Eds.), "The International Firm", Pitman Publishing Ltd., 1977.

8 Buzzell R. D., "Can you standardize multinational marketing ?", Harvard Business Review, November - December 1968, pp. 102-113.

9 Cateora P. R., "International Marketing", 5th Edition, Richard Irwin, 1983.

10 Cundiff E. W. and Hilger M. T., "Marketing in the International Environment", Prentice-Hall Inc., 1984.

11 Dicken P., "Global Shift : Industrial Change in a Turbulent World", Harper & Row Inc., 1986.

12 Dunning J. H., "Trade, Location of Economic Activity and the Multinational Enterprise : A search for an Eclectic Approach", in Ohlin B., Hesselborn P. O. and Wijkman P. M. (Eds.), "The International Allocation of Economic Activity", Macmillan (London), 1977, pp. 395-418.

13 Dunning J. H., "International Production and the Multinational Enterprise", George Allen & Unwin, 1981.

14 Gerwick, Jr. B. C. and Woolery J. C., "Construction and Engineering Marketing for Major Project Services", John Wiley & Sons, 1983.

15 Gilligan C. and Hird M., "International Marketing : Strategy and Management", Croom Helm, 1986.

16 Hawkins R. G., "International Business in Academia : The State of the Field", Journal of International Business Studies, Vol. XV No. 31, Winter 1984, pp. 13-18.

17 Heckscher E., "The effects of foreign trade on the distribution of income", (first published 1919), in Ellisad H. and Metzler L. (Eds.), "Readings in the Theory of International Trade", Allen and Unwin (London), 1950.

18 Keegan W. J., "Multinational Marketing Management", 3rd Edition, Prentice-Hall Inc., 1984.

19 Kinsey J., "Marketing in Developing Countries", Macmillan, 1988.

20 Levitt T., "The globalization of markets", Harvard Business Review, May - June

1983, pp. 92-102.

21 Majaro S., "International Marketing. A Strategic Approach to World Markets", George Allen and Unwin, 1982.

22 Mansfield N., "Assessment of strengths in the UK international construction sector", International Journal of Project Management, Vol. 6 No. 3, August 1988, pp. 141-146.

23 Neo R. B., "International Construction Contracting. A critical investigation into certain aspects of financing, capital planning and cash flow effects", Gower Press, 1975.

24 Ohlin B., "Inter-regional and International Trade", (first published 1933), The Oxford University Press, Oxford, 1973.

25 Perlmutter H. V., "The Tortuous Evolution of the Multinational Corporation", Columbia Journal of World Business, Vol. IV, January - February 1969, pp. 1-18.

26 Ricardo D., "The Principles of Political Economy and Taxation", (first published 1817), Everyman's Library Edition, New York, 1958.

27 Seymour H., "The Multinational Construction Industry", Croom Helm, 1987.

28 Smith A., "The Wealth of Nations", (first published 1776), Modern Library Edition, Random House Inc., New York, 1979.

29 Stapler W. and Samuelson P., "Protection and real wages", Review of Economic Studies, Vol. 9, 1971, pp. 23-27.

30 Terpstra V., "The Changing Environment of International Marketing", International Marketing Review, Autumn 1985, pp. 7-16.

31 Terpstra V., "The Evolution of International Marketing", International Marketing Review, Summer 1987, pp. 47-59.

32 Tookey D., "Export Marketing Decisions", Penguin Books, 1975.

33 Wind Y., Douglas S. P. and Perlmutter H. V., "Guidelines for Developing International Marketing Strategies", Journal of Marketing, Vol. 37, April 1973, pp. 14-23.

34 Zeid E. H. A., "Marketing and export success", Unpublished Ph.D. thesis, Department of Marketing, University of Strathclyde, September 1981.

CHAPTER FOUR

THE RELEVANCE OF MARKETING IN CONSTRUCTION

## 4.1. DOES MARKETING APPLY TO THE CONSTRUCTION INDUSTRY ?

Unlike studies into the applicability of marketing in both consumer goods and industrial products where inquiries have been made exhaustively for decades, the literature pertaining to the role marketing has in the construction industry is relatively scant, few and far between. What little publications that exist deal mainly with the domestic aspects of the industry with barely any notable emphasis on its corresponding international issues except for the usual repetitive statements made about the complications, uncertainties and risks construction firms inevitably face in the international arena. In the first instance, this seems to be obvious enough without the need for constant restatements about the perilous conditions confronting any firm contemplating overseas ventures beyond what it has grown accustomed to and familiar with in the domestic market. The tendency for writers to tread along this obvious line of thought is understandable considering the fact that this is already an exceedingly difficult subject to deal with within the domestic scene alone. By introducing an element of international perspective, it will not take long to appreciate why many writers have been cautious in approaching a subject-matter of this nature where the inherent complications therein can easily be blown out of proportion !

The immense difficulties already generated by the domestic industry within which firms function tend to be compounded further when one considers operations in another country where apart from the relatively unknown political, economic, social and technical variables, one has also to contend with a whole host of other factors acting either in combination or singly, each imposing a different degree of influence within any one operating system. As McDonald (1982) has noted in his work on the theory and practice of marketing industrial products internationally, this situation poses many problems for one who partakes in research of this nature where the researcher will eventually be cornered into adopting what seems to be the only alternative available. In lieu of the almost impossible task of quantifying the observations in each specific case, a reliance on qualitative data may prove to be necessary. As will be shown shortly, marketing does indeed has a role to play in both the domestic and international construction scenarios. It is undoubtedly of relevance because construction firms need to create opportunities and to secure work to sustain their existence, either in profitability or growth terms. This would require a knowledge of the markets within which firms are operating or intend to operate and for which strategic decision-making, planning and control systems have to be instituted.

In the course of this research, the search for an immutable paradigm befitting these conditions gradually became futile attempts to encapsulate the numerous factors likely to be encountered overseas into clearly definable marketing strategies. The

stringency and rigour needed to achieve thoroughness is constantly under a threat of dismissal posed by the continuously changing operating condition. Along similar lines, Ofori (1980) has also faced a similar dilemma while searching for a developmental blue-print capable of use in cross-country applications. Changing influences through time and the different perceptions of decision-makers seem to account for the reason why marketing in the construction industry has not taken root as firmly as those in the consumer good and industrial product categories. There are still debatable issues which have yet to be resolved as a result of the different beliefs of both the academicians and practitioners. A consensus as to what marketing in construction entails is still lacking.

Although there appears to be differences in the interpretations of the marketing concept, there do not seem to be any widespread disagreement or dispute as to its validity in application. Marketing principles still apply regardless of whether construction is look at from a :

1. domestic or international perspective.
2. tangible or intangible perspective.
3. product or service perspective, and
4. industrial purchaser or consumer perspective.

These issues raised by different writers will be dealt with shortly.

There appear to be two levels of marketing practised by construction firms, in what can be termed here as the upper level and the lower level. Upper level applications would take the form of policies and strategies formulated to attain long and medium term marketing objectives, tend to prevail within the higher echelon of a firm's organisation, and generally divorced from direct contact with the general public. On the other hand, lower level applications would be more prolific in their direct and often short term contacts with members of the public. It would however be misleading to treat these two levels as separate entities when, in effect, an application would normally involve a combination of activities in the two levels. Nonetheless, there will be a pronounced tendency for an application to be weighted towards any one level. Kreamer (1985, 1985a, 1985b, 1985c), for example, has enumerated the following marketing tools directed by construction firms towards the general public to create awareness and familiarity :

1. The use of eye-catching company symbol or logo.
2. The display of well laid out signboards at prominent locations and around the vicinity of the site.
3. The maintenance of a clean and tidy site, supplemented in turn by an orderly and well-disciplined workforce. The Japanese and South Korean contractors, for instance, have been instrumental in eradicating unkemptness on sites by providing uniforms for their workforce.
4. Prevent site offices, buildings and vehicles from deterioration and developing into states of disrepair through neglect. Any other "eye-sores" should similarly be

avoided elsewhere along the fringes of the site.

5. The posting of regret notices on sites where on-going operations are likely to propagate inconvenience to the surrounding vicinities and members of the public.
6. The maintenance of a corporate image and plush premises at Head Office so as to instil a high level of confidence for those who are likely to be potential business associates.
7. The proper presentation and use of office stationery, letterheads, annual reports, and company brochures, etc.
8. In the case of a project with monumental or sentimental values, it may be worthwhile organising a topping-out or foundation ceremony to be performed by an eminent person with attendant press coverage.
9. For projects using frontier technologies, a documentary film may be commissioned for future promotional screening to interested organisations or individuals.
10. The maintenance of good public and press relations through various means, including selective sponsorship of national and social events, accommodating requests for site visits from educational institutions, etc.
11. The use of advertisements in newspapers and appropriate trade journals. Jepson and Nicholson (1972), for example, have argued that advertising is the only marketing technique for many building firms and as such should constitute an essential budget consideration for all construction enterprises.

These tools appear to be well understood and adopted widely by firms throughout the construction industry. On a more subtle note, there seems to be an understanding among the more established and reputable firms that a truly satisfied client is the best asset one could have in anticipation of future repeat orders and recommendations to other potential clients.

The aforementioned marketing tools point to a high degree of relevance for firms related to the construction discipline. However, marketing should not be confused with selling; nor is it associated merely with clients' entertainment and public relations. Marketing should be an attitude of the mind which permeates through the organisation from top management right down through the hierarchy, involving everyone and every activities generated from within. It is not a one-off affair. Rather, it necessitates dedication and commitments augmented from within the firm which are then continuously monitored to match spontaneous developments and changes influenced by external dynamics. The marketing concept is of relevance and importance to both profit and non-profit making organisations where the ultimate focus rests on the satisfaction of human needs and wants. Firms within the construction industry are therefore, without exception, included.

## 4.2. THE NEED FOR MARKETING IN CONSTRUCTION

Having considered the applications of marketing in construction as exemplified by

the familiar practices adopted by construction firms both on and off-site, there remains the task of inquiring into why a need exists for marketing within the construction industry.

Traditional writers on marketing pertinent to both products and services have attributed this to the need for firms to maintain targeted market shares, achieve set profit margins or attain growth objectives, and have argued that these can be fulfilled much more readily through a conscious effort made in implementing the marketing concept. In the process, marketing management and planning, marketing research and forecasting, and a whole host of other marketing tools may need to be invoked. It has been asserted that through this process, firms are better placed to act according to what has previously been identified or anticipated rather than to be confounded later by the risks and uncertainties of unknown situations. It is thus the existence of plans that create an awareness of what lies ahead which is of importance, not the plans themselves.

Tendering has long been a feature in the industry as an accepted convention necessary for the award of contracts to construction firms to achieve value for money in both the public and private sectors. Price, as a result, has often been elevated to assume a dominant role in deciding who will eventually win the contract. It would appear that the role marketing has will consequently be relegated to a position superimposed by the more appropriate concerns of work study and productivity. Only by carrying out works efficiently can costs be reduced, and hence price. While this might be true, it should also be realised that the returns from contracts secured through marketing efforts may be worth many times more than that achieved through savings brought about by work study and increased productivity. Cost-saving techniques, for that matter, would be irrelevant if no job exists.

Where overseas operations are concerned, there seems to be a fallacy concerning price in today's market situations. Many overseas buyers may not have the capacity to raise the money required and are therefore placing increasing reliance on loans secured from international lending agencies, unilateral and multilateral assistance from other donor countries, and contractors' arranged finance. Under such circumstances, there is a shift in the selection process away from price to one which rests on the contractor's innovation and ability to arrange the best mode of financing available in terms of the longest repayment period and the lowest interest rate payable. Gray (1985), in reporting the performances of British construction companies in the international market, notes the increasingly changing trend in contractors having to promote new projects themselves by taking the initiative to create work instead of waiting for requests to come by. It would not be unreasonable in a "buyer's market" to expect the use of additional criteria, both objective and subjective, in prequalifying and selecting contractors. Price alone is determinant enough. However, considerations must now be given also to other factors which

impinge on construction firms such as their reputation, the type of resources available, financial capacity and stability, suitability for the work on hand, management expertise and co-operation, as well as the timing of their availability. These criteria will be examined in greater details later.

Traditionally, there has been an established belief that the provision of services to meet the time, cost, quality and other requirements of the clients will bring about repeat orders. As a result, and as noted earlier, a satisfied client is thus a much cherished asset to the firm. This, however, appears to be a relatively misleading view considering the fact that virtually every provider of goods and services today apply themselves to meeting their clients' requirements faithfully. An assurance of repeat orders may not be forthcoming simply by adhering to this belief alone. Short of marketing their products and services aggressively, virtually no firm is immune nor protected from the competitive element of a free economy. Blind reliance on an ability to produce exceptional quality to within the time and cost constraints, it would appear, is insufficient because many other firms are likewise capable of providing similar, if not better, offerings. Fisher (1986) notes that it is erroneous to assume that

> "If a man writes a better book, preaches a better sermon, or makes a better mousetrap than his neighbour, though he build his house in the woods, the world will make a beaten path to his door (Fisher, 1986:29)",

and that such belief may well have much to do with the consistently poor performance of the British industry in international construction markets.

Marketing has been acknowledged as a generator of benefits to numerous sectors of the economy, not the least of which is the construction industry even though this has kindled interest only in very recent times. Marketing seems to has made relatively little inroads into the construction discipline even though its perceived need by the industry has long been overdue. Jepson and Nicholson (1972), in addressing this gaping issue within the construction industry, similarly lament at the lack of penetration marketing has made into the centres of influence and canvass the view that

> "To some extent, this follows from the character of the industry as an agglomeration of service organisations, not without structural relationship to one another, but serving a clientele from which individuals seek service very infrequently, ... and that in attempting to gain wider currency for concepts which have become well established in industry at large, interest has tended to come from merchants, manufacturers and some speculative builders rather than from the much greater number of contracting and professional firms (Jepson and Nicholson, 1972: preface p. v)".

Wilson (1985) has been more vocal and critical of this lack-lustre attitude displayed by the industry even though marketing may give rise eventually to successful performance. Although "success" has traditionally been ill-defined, this at least constitutes an assertion which McDonald (1982) has struggled at length to curb while

relating the influence marketing has on the "success" of firms involved with the marketing of industrial products overseas. However, despite the innate difficulties in extracting a link between marketing and success, Wilson (1985) has been instrumental in pointing out that

> "Marketing, which is not an up-market word for 'selling' has arrived in the construction industry but it cannot for one moment be said yet to drive the industry towards a return to its previous prosperity because only the more sentient firms have as yet reached a real understanding of what marketing can do for them, while the remainder either pay lip service to the concept or else continue to live in a cloud cuckoo land of production orientation (Wilson, 1985:16)".

Wilson (1985) goes on to point out the distinction between selling and marketing. While the former is concerned predominately with ensuring the purchase by clients of products and services offered by a firm, the latter adopts an orientation which is more concerned with ensuring that only products and services required by the clients are provided by the firm. Selling thus concentrates on the needs of the vendor in an endeavour to convert his products or services into cash, while marketing focuses attention on the needs of the buyer and is associated with a wide array of activities directed towards the creation and delivery of products and services to satisfy the buyer's needs. Selling is only one among numerous other tools under the marketing continuum which utilises an assortment of appropriate marketing tools and messages to convert a potential client into an actual client. This process is illustrated in Figure 4.1.

In view of the diverse marketing tools available, the appropriateness and viability of each individual application has to be assessed according to the circumstances of each particular case. Moore (1984), however, considers the application of marketing principles to be independent of a firm's size although he believes that the methods of application do vary from firm to firm as a function of size and type of activities. Moore (1984) has observed an exceedingly large concentration of small firms within the British construction industry but hesitates to suggest this as a valid reason for the neglect of marketing planning within the smaller segments of the industry due to the lack of resources.

This fragmentation, nevertheless, seems to accord well with Claxton's (1985) views relating to the management of international construction projects. Claxton (1985) contends that the

> "industry is too fragmented to permit the development of marketing strategies which target identified markets and aim to ensure that work in those markets comes to British firms (Claxton, 1985:151)".

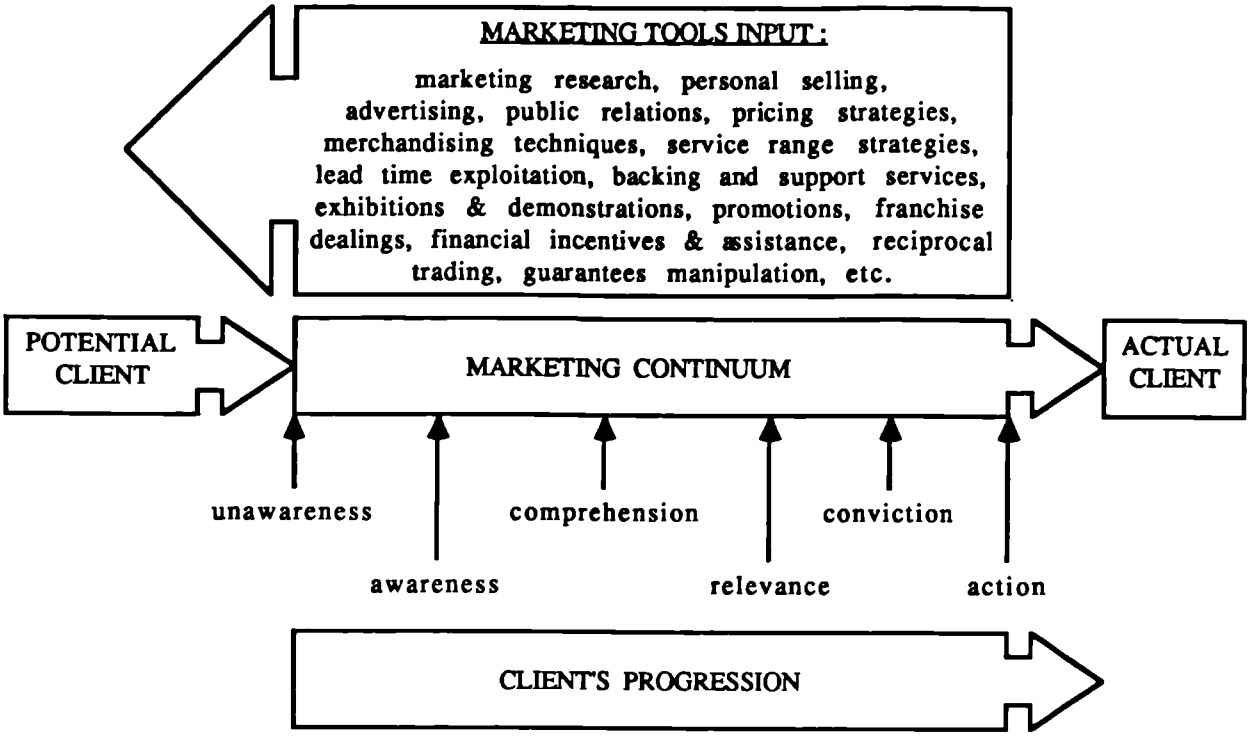



FIGURE 4.1. THE MARKETING CONTINUUM

(Adapted from : Wilson A., "A Philosophy for success", Contract Journal, 31 January 1985, p. 17.
Wilson A., "The Marketing of Professional Services", McGraw-Hill, 1972, p. 14.)

In a similar tone, Hamilton (1969) has also underlined the reasons why marketing applications have faced resistance within the construction industry. In his opening address to a marketing seminar for the building industry, Hamilton (1969) has compared and contrasted the rationale behind what others have seen as the difference between industrial and consumer good purchasers, and argued that

> "Firstly, because the concept of marketing applies just as much to industrial marketing, it is still necessary to study what the consumer wants. Secondly, in a field where the products are the same, or very similar, competition is keen and the basic law of nature - the survival of the fittest - applies with particular force. In the long run, the fittest are those who take their marketing seriously (Hamilton, 1969:98)".

As pointed out earlier, competition in the international construction market has become more intense firstly because of the growing number of entrants from both the developed and developing world, and, secondly, as a result of demand levelling off in most countries after decades of sustained development programmes which, at their earlier stages, have remained primarily the domain of firms from the developed world. Although there has been a constant need to upgrade and maintain existing infrastructural facilities for improving efficiency, generally speaking, this appears to generate a relatively smaller volume of work in contrast with the new programmes initiated by industrialisation plans freshly conceived during the early stages of a country's development. Cox (1982), for instance, recognises this trend and

similarly observes that

> "In many industrial countries, the essential demand for all types of construction has now been met. This does not mean that increased standards or higher output is not needed, but it does mean that demand is more selective. In recent years, a buyers' market has developed and all in the construction industry must market their skills and products. Consultants, subcontractors and main contractors are no exception and find it necessary to adopt a marketing approach (Cox, 1982:16)".

It looks as though construction firms are now placed in a much more difficult position where a high level of sophistication appears to have permeated throughout the industry and where a greater choice of selection has been afforded to prospective clients. With the advent of specialist subcontracting, firms are now avail of the opportunities to bid for and undertake works where expertise and competence were found to be lacking previously. Again, this depends on the nature of the works involved. In so far as a construction buyer is concerned, Wilson (1985b) has classified these as either a "first-time acquisition", a "modified re-buy" or a "straight re-buy", all of which influence the decision-making process of the client and are susceptible to the applied marketing practices of construction firms. In reviewing the marketing of services in the British construction industry, Hardy and Davies (1983) consider that

> "The broad scenario facing firms in the UK construction industry is certainly, at best, uninviting. It emphasizes the needs for companies to develop strategies for maintaining, not to mention increasing, market share. Many companies will endeavour to sustain current activity levels in an attempt to absorb overheads, and margins will inevitably suffer. The present number of operating units will decrease throughout the decade and only those firms which can adjust to the challenge of the market place will survive. In this context, the concern of marketing must be that of achieving profitable sales in existing market segments and in new business developments (Hardy and Davies, 1983:7)".

In spite of the benefits accruable to the industry if the concept of marketing is taken on board, the mild reception appears to has neither heralded in a new era in construction business dealings nor witnessed a dramatic turnabout in attitudes within the construction industry. There seems to be some misconceptions about the marketing role and its application in an industry as diverse as construction. As Trench (1969) has pointed out, marketing policies are rarely carried out comprehensively nor skillfully by many builders - even the larger ones - and

> "that marketing is seldom organised as a high priority management function. How many builders have a senior marketing executive ? Many have a 'sales' or 'commercial' manager or director but his management responsibility is rarely spelt out to include the total span of the marketing function. The function is generally spread out among several members of the board or several senior executives (Trench, 1969:64)".

Such an approach, it would seem, undermines the role of marketing, which as a philosophy, is expected to permeate throughout the entire organisation and not be confined solely to within the upper echelon of the management hierarchy. Fundamentally, contracting firms would recognise that clients are only interested in services and propositions which seek to eliminate or reduce uncertainties and risks. While bricks and mortar are the tangible elements produced by contracting firms, nevertheless, clients are basically more concerned with how the managerial and organisational skills possessed or professed by these firms can effectively be used to arrange these tangibles together in a manner to produce optimal results and achieve stated objectives.

Marketing seems to be of interests for international construction firms in the face of growing competition and clients' expectations fuelled by a declining demand in recent years, particularly in the once lucrative Middle East market. This seems to has the serious effect of curtailing opportunities in new-build works when compared with the frenzied volume of activities generated in the 1970s and early 1980s as have been evident in the works of Seymour (1986), Nicco-Annan (1987), and Navarre and Schaan (1987). Following this contraction in work volume, thoughts have been given to other options beyond the field of construction in search of work or at least the opportunities to create work. NEDO (1984), for instance, has predicted that in the future to 1990,

> "Innovation in the best firms in the industries already goes beyond products to encompass finance, marketing and fitting out. It is essential that this approach should be much more widely adopted. A key area for innovation is the marketing of repair, maintenance and improvement services : since the level of RMI work required across the board is growing throughout the period for reasons of defects, wear and tear and obsolescence (NEDO, 1984:12)".

Having assimilated the need for marketing in construction, the task remains to examine marketing from a tangible-intangible perspective, product-service perspective and industrial purchaser-consumer perspective. The various approaches to marketing within the construction discipline, as well as the marketing implications of different contract strategies will also be examined, albeit briefly.

4.3. CONSTRUCTION MARKETING : TANGIBLE OR INTANGIBLE ?

The inquiry into marketing from a tangible-intangible perspective arose not from the construction industry. Although this area of theorising seems to has originated from the consumer goods and other services industries, its significance will inadvertently be weakened if each individual sector is looked at in isolation without due consideration given to their interfaces. Products are undoubtedly tangible when production precedes consumption, as is the case of the manufacturing industry. Services, on the other hand, can only be consumed spontaneously at the same time when production takes place. As a result, this can be classified as intangible. The complexity of this dichotomy does not emerge until the two are juxtaposed into an

interactive effect at the interfaces between products and services. This effect has been depicted in Figure 4.2.

The superimposition has, as a result, led to what would seem to be several attempts made by others in dissecting the various outcomes of this interface. Although such a dissection may be meaningful for the purpose of distinguishing between a single product and a single service, and to differentiate the appropriateness of different marketing tools, this does not seem to be a heuristic exercise for the construction discipline because of the diverse range of inputs from the product-service spectrum at any one time. The amalgamation of trades and professions employed, the agglomeration of building materials used and the linkage effects arising out of the numerous interrelationships therein are indicative of the futility in attempting a cross-sectional comparative analysis of this nature. Black (1971), in considering the marketing mix of building products alone, notes that

> "As far as the building supply industry itself is concerned, the peculiar and critical problems facing the marketing man can be demonstrated by considering the basic climate in which marketing takes place (Black, 1971:71)",

and continues at length to enumerate the characteristics worthy of considerations in planning for marketing within the construction industry. Firstly, because of the exceptionally long product life cycles for most building materials, there will always remain a difficulty in proving durability over time. This can, however, be overcome to a certain extent by simulation and other experimentations pertaining to weathering effects conducted under controlled laboratory conditions. Secondly, the

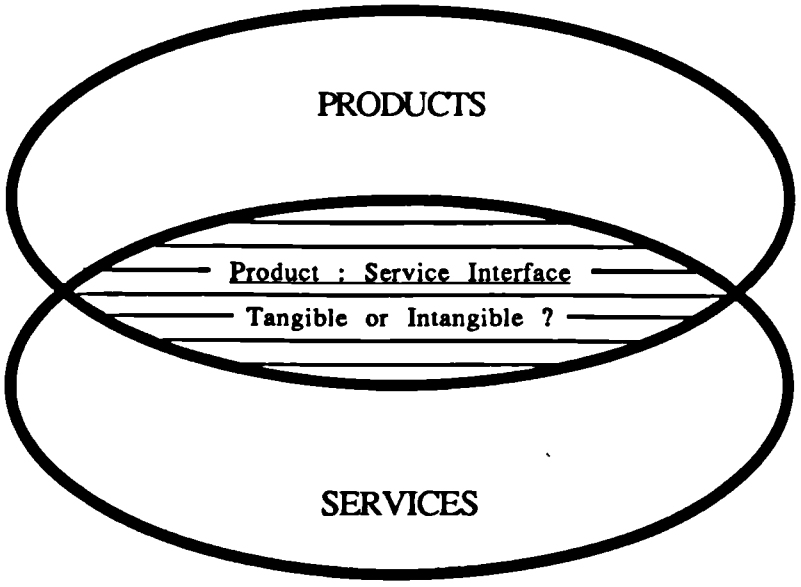



FIGURE 4.2. THE INTERFACE BETWEEN PRODUCTS AND SERVICES

relationships between trades and unskilled labour have made structural changes

extremely slow in coming, and the clear disparities between the crafts have meant that product differentiation within any one particular trade is only of marginal significance. Thirdly, the unique locational factors of each site have created complications in physical distribution - all the more so in civil engineering works where a project is not confined to a particular locality but extend over a large geographical spread as is evident in the construction of motorways and cross-country pipelines. The search for optimality in solving transportation problems has, nonetheless, been a major contribution from the operational research discipline in this direction. Lastly, construction has predominately been looked upon as an attractive and secure capital investment which requires substantial amount of financial commitments from investors who, understandably, tend to be conservative. As a result, marketing efforts directed towards design and product innovation are stifled. Black (1971) seems to imply that the application of marketing within the entire construction system is incapable of any universal comprehension in view of the many facets awaiting considerations therein. Black (1971) does not deny the fact that marketing is applicable within the construction industry and that it is not trivial but taken as a whole, it can be messy. In view of the great number of products and services combinations, both tangibles and intangibles within the construction industry, it would seem plausible to direct attention only to where the real interest and concern of a firm lie. Otherwise, the expansive problem would be compounded further in having to comprehend additional factors in a dynamic system at a time when even the very basic question of what constitutes tangibles or intangibles has not been resolved. As Hardy and Davies (1983) have affirmed,

> "Discussions as to the most appropriate way to define services is a continuing preoccupation of researchers, and at present no consensus seems to have emerged (Hardy and Davies, 1983:11)".

Within the technical and contractual framework of the construction industry, there are inherent tangible and intangible elements. Take the case of using construction quality as a marketing tool by a contracting firm. Quality, for that matter, can be recognised readily but poses insurmountable difficulties as to its precise definition. Yet it is capable of yielding objectivity for use in marketing. Past completed projects, mock-ups, furnished showrooms, samples, etc., are all examples of this search for tangibility. Its intangible counterpart can be reflected through the implementation of in-house quality assurance schemes, quality manuals and specifications, managerial skills and organisational forms, etc.

Industrialised buildings present similar patterns of dichotomous disaggregation. While prefabricated components, whether on or off site, provide a good visual indicator for marketing quality, the assembly and erection processes on site smack of such tangibility apart from inspections during assembly and utilising structures previously erected elsewhere for demonstration purposes. Components and erection

processes are not only distinguishable but are also man-handled at different points in time. As a result of these interactive tangible and intangible elements, their contributions to a clearer understanding of marketing become severely limited. At best, this can only be a function dependent on the clients' involvement along various time scales.

Speculative housing, on the other hand, has frequently been thought of in terms analogous to consumer durables and appears to has tacitly avoided the identification problems encountered by the other types of more conventional developments. Because speculative houses are more likely to be built before they are sold, the marketing task becomes relatively straight-forward. Potential purchasers are afforded the opportunities to first assess the products before the sale is made. This is unlike the conventional mode of procurement where the contract is awarded before construction commences. Where repetitive housing schemes require orders to be placed in advance of actual construction, buyers are still afforded similar evaluation opportunities as a result of mass production and erection undertaken elsewhere by the firm singularly. From a marketing view point, buyers' expectations can then be rationalised objectively. Along similar lines with consumer goods, the marketing mix which comprises mainly of product development, pricing and promotion appears to be of practical relevance here. Apart from the product proper, there has also been an increasing sophistication in arranging finance for prospective customers. The level of sophistication and competition may have increased to such an extent that buyers expect such arrangements to be included as part of an overall package. Similarly, it would seem that developers in recognising the marketing potentials of such an approach, have responded enthusiastically.

The issues raised here concerned the confusion over the product-service interface. Even if this can be overcome readily, its contribution to practice appears to be quite marginal. As Levitt (1981) has summed up, this whole notion of tangibility and intangibility is not particularly useful in this respect because many products have intangible elements which can only be evaluated and experienced fully after the purchase has been made.

### 4.4. CONSTRUCTION MARKETING : PRODUCTS OR SERVICES ?

The tangibility-intangibility approach in marketing seems to has been derived from the clear division between products and services. While this approach has been criticised for its lack of useful contribution, the distinction of the product-service perspective appears to be helpful because their essentialities can be grasped much more readily. An exhaustive literature review of its relevance to construction, however, revealed a wide range of opinions. Although none has attempted to put forth products as the only significant element in construction, others have exhorted a service-proposition as well as connotations of other product-service combinations. There are still others who argued that despite the various implications which can be drawn therefrom, such a distinction in construction is again unlikely to be helpful.

Although the end result of a construction programme is a physical product - be it a building or other civil engineering landmarks - contracting is essentially concerned with the provision of services. The construction firm is, in effect, providing the management service of assembly and erection on site. In the absence of a product, which traditional marketing theories have always assumed to exist, construction firms instead offer "propositions" to their clients. In marketing terms, a competitive edge can only be created and maintained through what Wilson (1985c) has described as the "unique selling proposition", containing some aspects within the offer which is unique to the firm, of benefits to the client, and certainly not attractively available elsewhere. In sharp contrast to this scenario, and as noted previously, speculative house building appears to be the only mode of procurement in construction with a product line which enables potential purchasers to relate their needs much more readily with definable and objective criteria. As Moore (1984) has succinctly concurred,

> "Except in the case of house-builders who have finished products for sale which can be inspected before purchase, contractors have on offer only services (Moore, 1984:45)".

In dealing with services, purchasers are invariably deprived of objective, visualisable facts in decision-making, and in the process are guided by subjective notions which quite often are tainted with emotional bias developed from past experience, other people's experience and other surrogate evidence. The consequences of interest here have been observed by Wilson (1985a) who recognised that

> "the marketing of products and the marketing of services while sharing common tools have very different message to convey. The fundamental disparity is that in marketing a service, the customer buys an expectation and expectations unlike tangible goods, cannot be seen, heard, felt, tasted or smelt (Wilson, 1985a:12)".

One needs only to consider briefly the activities within the construction system as well as other alternative modes of contractual arrangements to appreciate the vast magnitude of products and services involved. Traditionally, contracting firms are appointed solely for their services to both assemble and erect building components - an arrangement with a clear demarcation from the design aspects of the project considered. Apart from the ad hoc fabrication of some minor items on site by the contracting firm, a major proportion of the components required is solicited elsewhere from material suppliers either directly or as a result of a nomination made by the client or his representatives. In any case, the task of marketing building products to contracting and consulting companies rests with both the components' manufacturers and their agents. It would rightfully appear that the contracting firm is rarely concerned here unless requested by the client or his representatives to

make a recommendation regarding the use of appropriate materials or in response to an enquiry as to why certain makes of materials are used when particulars pertaining to such are not stipulated in the specifications. Although there is some degree of co-existence here, it would still be misleading to conveniently assume that these matters are completely under the jurisdiction of the contracting firm. There is a need to appreciate that most contracting firms are traditionally providers and marketers of services, but in the process of rendering such services, come into contact with products marketed by others.

The advent of different contract strategies has also brought about a shift in practices away from the traditional mode of procurement. In pursuing further the division between products and services, it is worthwhile to consider the influences of package-deals, turnkey contracts, and design and build contracts. Therein, the distinction between design and construction services tends to be diffused and less clear within the overall operating framework of a contracting firm. This undoubtedly needs to be accounted for in marketing the firm's services to its potential clients. The responsibility for product selection now rests within the contracting organisation unlike the traditional arrangement where nomination remains vested in the client and his representatives. This added responsibility, it would seem, not only enlarges the scope but also creates further complications in expending the marketing effort. Management contracting also appears to tread on uncertain grounds. As it is now devoid of the design and construct elements from within, the marketing emphasis can only be placed on the managerial skills and organisational qualities professed by the management contractor. This would seem to accord well with the established theories and principles expounded for the marketing of services in other industrial sectors. However, in the case of construction, the desirability of encapsulating every variables into a neat and tidy paradigm cannot be performed in a manner as orderly as what one would like it to be. As Hardy and Davies (1983) have reasoned,

> "The marketing of construction services does not simply duplicate the mainstream features of the marketing of services. This is due to several factors, notably the substantial product content in many construction industry service propositions. There are also internal differences between services within the construction industry (Hardy and Davies, 1983:9)"

The difficulty in conceptualisation does not seem to lie in either the service or product category. It is only when one tries to extract a supposition which bears little resemblance to any one end of the product-service continuum that complex combinations are bound to arise. In any case, a pure service is very rare as is indeed a pure product. Hardly any service can be performed without the requirement for some physical elements. Similarly, products can only be processed and marketed in the presence of some form of service component, however negligible that may be. Wilson (1985a), again with reference to the contracting sector, argues that

> "The product / service dominance will vary from services where the product element is high such as in plant hire to one where the product element is low such as in surveying. Construction, it would seem, is in a situation where service and product are of virtually equal importance. Thus the construction industry has the relatively rare advantage of being able to use both product and service marketing techniques (Wilson, 1985a:12)"

Wilson (1985a), however, continues to stress that in considering marketing within the context of construction, it is safer to approach the proposition on offer substantially as a service. The consequential limitations of this sharp clarification have been reflected in marketing practices. Advertising of construction services, for instance, is approached in ways different from that of a finished product. The potential buyer of a car, for example, may have his attention drawn to a particular make or model as a result of an advertisement. Before making any further commitments, he may contact the agent, view the car in the showroom and test drive it. In addition to examining the car both externally and internally in details, he may also enquire about a whole host of other details such as fuel consumption, the availability of spare parts and servicing convenience before making a decision towards a purchase. Such opportunities are similarly available for the potential purchasers of other capital and consumer goods. There are provisions for detailed inspections before a purchase is made and in many cases, purchasers are guaranteed a refund for dissatisfied or defective products. These provisions are, however, difficult to be implemented in construction, short of what may be of relevance in speculative house building and the imposition of retention monies for rectifying defects. Moore (1984), in reviewing the role of advertising for the construction industry, has similarly been doubtful about its effectiveness and acknowledged that

> "This is not the case in general contracting in the construction industry. The purchaser cannot pre-examine the product. The contract is placed on trust. It follows that advertising for most capital and consumer goods is very different from advertising a service, and the effectiveness of advertising is more easily measured in those industries than it is in construction (Moore, 1984:51)".

Wilson (1985b) has earlier on suggested that construction marketing should be looked at from a service perspective. However, what if it is accepted that construction is equally composed of both the service and the product elements ? Should there be a differentiation in its marketing approach substantially dissimilar to those industries that have either a product or service dominance ? Understandably, Wilson (1985b) seems to has avoided a direct confrontation with these issues in view of the confounding considerations that need to be taken into account. Instead, Wilson (1985b) notes that

> "Because the marketing characteristics of services are so different from those of products, certain marketing tools and marketing methods are ineffective or impossible to use while others take on an importance not matched in product dominated business (Wilson, 1985b:13)".

Wilson (1985b) continues at length to describe the fundamental marketing distinctions prevalent in construction which probably account for the reason why the marketing concept has not been grounded readily regardless of whether the approach is one of product or service, tangibility or intangibility. Figure 4.3, derived partly from Wilson (1985b), has been constructed here as a holistic model to track the marketing flow system in construction and to summarise the wide-ranging scope enclosed within the system. In the process, this can help to account for the general lack of understanding and appreciation of the subject-matter. The feedback within the model denotes the business policies and strategies, with or without modifications, adopted by the contracting firm to achieve set marketing objectives. It also denotes similar technical clarifications and contractual provisions imposed by the client to safeguard his interests and fulfill his needs. The model highlights the marked difference between the products sub-system and the services sub-system as well as the numerous factors that need to be taken into account in order to provide a systemic perspective. No attempt has been made here to suggest which is more desirable, appropriate or useful for instituting effective marketing results in practice. The importance lies not in generating instant solution but rather to create an awareness of the heterogeneity within and the differences in degree that condition their relative importance. Moore (1984) considers that more than anything else,

> "It is important to appreciate that marketing in a service industry differs considerably from marketing in a consumer goods industry, although the basic principles are the same (Moore, 1984:12)".

As is evident from the marketing literature, there have been attempts made to draw a difference between marketing as applied to products and services. Numerous examples can be drawn from the banking, tourism, and hotel and catering industries as well as the usual inputs from consumer goods and industrial products. Although the effort expended in this direction is commendable in creating a greater awareness and understanding within their respective disciplines, it would be counter-productive if the energy is obsessively channelled to prescribing "instant solutions" which are liable to be dismissed in their entirety within the context of a dynamic system. Along similar lines, Hardy and Davies (1983) note that

> "Concern with the distinctive features of the marketing of services is a recent development in the literature. The novelty of this field of enquiry poses the danger of enticing researchers to overemphasise the disparate features of product versus service marketing as did many protagonists of the consumer versus industrial marketing distinction. Several writers have attempted to define the essential nature of service as opposed to product marketing. These attempts have been largely unsatisfactory (Hardy and Davies, 1983:8)".

Baker (1979) similarly argues that although there may be a difference in degree, any

excessive emphasis on such differences may in fact be harmful if it results in practitioners in either field neglecting the practice and thought in the other.

4.5. THE BUILDING CLIENT : INDUSTRIAL PURCHASER OR CONSUMER ?

The marketing practices for industrial products and consumer goods have been differentiated and documented elsewhere. This approach appears to be more resourceful compared to the one which deals with the tangible-intangible or

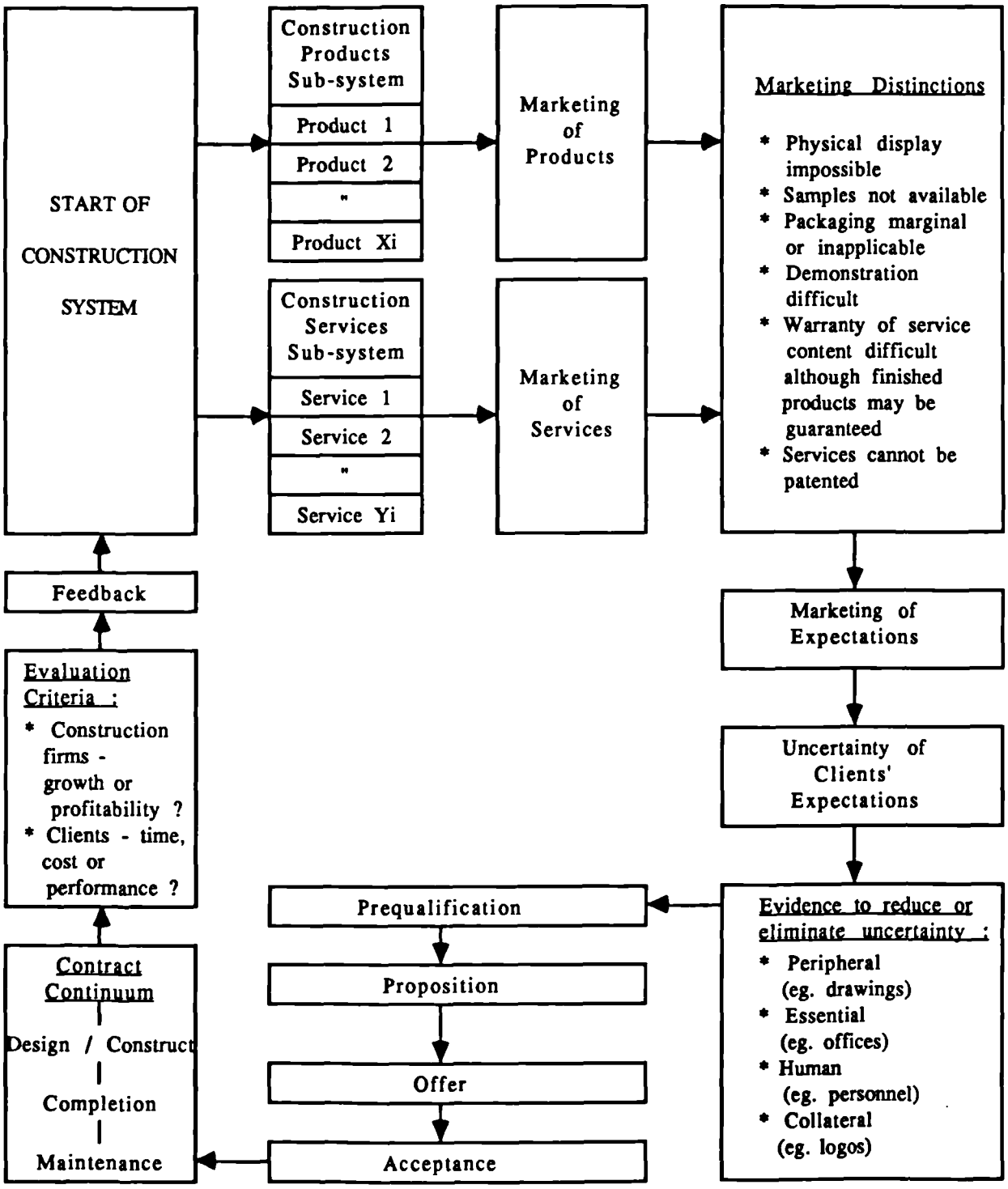



FIGURE 4.3. THE HOLISTIC MODEL OF MARKETING FLOW SYSTEM IN CONSTRUCTION

product-service divisions. The problematic areas are also seen to be narrowed or eradicated altogether as a result of a clearer demarcation in their scope. Commodities destined for any one sector - industrial or consumer - are readily recognisable as such although there are still instances where certain products can be of equal application for both the industrial purchaser and consumer. Take the simple case of a stationwagon. Its classification would undoubtedly be made under the industrial heading if it is to be used by a wholesaler or retailer for distribution purposes. Take the same stationwagon, this time used solely as a family car and it would now be classifiable under the consumer durable category.

Along a similar train of argument, speculative housing schemes may well be regarded as inputs to one industrial sector of the economy during construction, yet constitute the category of consumer durables available for purchase upon completion. As a majority of the related facts used in comparing industrial products and consumer goods are not disputable to any significant extent, the literature has typically focused attention on the decision-making process of both the industrial purchaser and consumer. In all fairness to the product-oriented industrialist, Risley (1972) suggests that

> "Consumer satisfaction in the industrial area is not based on the same set of criteria as it is in the consumer area. Typically, the industrial buyer is an expert whose buying decisions are far more rational than the ultimate consumer's. Therefore, product superiority in the form of cost saving, better technical performance and perhaps superior product service become his major considerations as against the more emotional and self-rewarding personal reasons, the pride, social acceptability, sexual prowess, etc., of the typical consumer buyer (Risley, 1972:9)".

The perceived irrationality of a typical consumer appears to put the producer and seller at risks. This has, however, been offset by the sheer size of the consumer market where the queerness, if any, of one single consumer becomes diffuse and loses its impact in relation to the mass market of consumers. Although the producer and seller of consumer goods have a large pool of potential customers where marketing efforts can be targeted, singularly, these customers are relatively small. As a result, no one single buyer has any dominating influence over the total market demand composition. In addition, there is barely any contact between buyers and sellers. The marketing mix is frequently modelled on the variables of product, price, promotion and place, within which decisions and distribution arrangements are made. On the contrary, and as noted by Gronroos (1983), there have been attempts made to replace such basic marketing models with more applicable alternatives within the context of industrial marketing. As most industrial marketers frequently have a limited number of buyers, each with a diverse range of needs, the marketers are rarely given any opportunity to standardize their products. Because a relatively large part of a seller's output can frequently be demanded by a few customers, the dominant influence over production now appears to rest with the customers. Unlike

the mass consumer market where there is limited interaction between buyers and sellers, the situation is somewhat different in industrial marketing. Here, the contact between buyers and sellers is made not only long before an actual purchase is made, but in effect may be necessitated by virtue of the product nature. Baker (1979), in detailing the distribution of industrial goods, has described the salient features of industrial marketing as opposed to consumer marketing. These provide the basis for the following sub-sections :

4.5.1. DERIVATION OF DEMAND

The demand for industrial products, it would seem, is largely derived from the demand for consumer goods. Any expansion or contraction in the latter is likely to be reflected by a corresponding shift in the former. It would therefore appear that an increase in demand for consumer goods is also likely to influence and bring about additional production centres such as large scale industrial estates and flatted factories. Likewise, the substitution of domestic production via imports necessitates infrastructural distribution networks such as roads, harbours, airports, etc., and other industrial facilities such as warehouses, containers' yards, etc.

4.5.2. INDUSTRIAL MARKETS TEND TO BE DOMINATED BY RATIONAL BUYING MOTIVES

Contrary to what Risley (1972) has suggested earlier, Baker (1979) argues that this has been misinterpreted in one of two ways - that industrial purchasers are devoid of emotional motives and consumers are frequently irrational. Baker (1979) reasons that consumers are not irrational and that industrial purchasers are similarly misguided into making emotional decisions. What does indeed differ is a matter of degree and the industrial buyer is more likely to place greater emphasis on objective criteria than the average consumers.

4.5.3. BUYER CONCENTRATION

The number of potential industrial purchasers is generally considered to be far smaller than the mass market for consumer goods. However, where the commissioning of construction is concerned, although decision-making is concentrated in the hands of a few persons, the actual products of construction, depending on their type and nature, tend to be dispersed geographically in contrast to consumer goods where production tends to be centralised for further dissemination to consumers over a larger geographical catchment area.

4.5.4. THE GREATER SCALE OF INDUSTRIAL PURCHASE

Although there are exceptions to the rule, an industrial purchase is likely to involve a much greater expenditure in absolute monetary terms when compared with a single consumer purchase. However, in considering the volume of purchase in proportionate terms, the reverse may instead be true.

4.5.5. INDUSTRIAL PRODUCTS ARE TECHNICALLY MORE SOPHISTICATED

In considering the degree of technical complexity, this may again appear to be true in relative terms. In any case, the purchaser is generally more concerned with performance rather than the intricate technicalities of construction, and both the

advice and service of the seller is relied upon to formulate an evaluation. Where the situation warrants, the industrial purchaser may either engage his own external consultants to safeguard his interests or may provide the much needed expertise from within his own in-house staff.

4.5.6. THE GROUP BUYING PROCESS FOR INDUSTRIAL PRODUCTS

Although the same may also be said of consumer goods purchased by a single household as a homogeneous decision-making unit, there is unlikely to be any formalised group assessment or decision processes as are commonly found in the industrial purchasing context.

4.5.7. THE GREATER ROLE OF SERVICES

To a certain extent, this appears to be true although it depends again on the nature of the service and the type of industrial products under consideration. Immediate availability is consistently demanded of most convenience goods and consumer perishables. This is rarely the case with most industrial products where a sufficiently long lead time is frequently required between order and delivery. Considering the after-sales service commonly demanded by most consumer durables, the significance of service is no longer confined exclusively to industrial products alone.

4.5.8. THE IMPORTANCE OF FINANCIAL REPAYMENT TERMS AND ARRANGEMENTS FOR THE EXTENSION OF CREDIT

Renting, leasing and credit terms have traditionally been in the domains of industrial purchasers although increasingly, similar financial arrangements have been extended to consumer goods. Where international construction markets are concerned, these have predominately taken the forms of export credits - both buyer's and supplier's - as well as other innovative pecuniary schemes conceived by construction firms which call for the building, operation and transfer of commercially viable projects to the client after an agreed period of time.

4.6. THE INDUSTRIAL DECISION-MAKING PROCESS

It would however be unrealistic to assume that industrial decision-making concerning purchases can be readily grouped merely from an understanding of what have just been expounded above. Marketing strategies derived from such a proposition would appear to be misleading in believing that the decisions made by potential customers are based on an individual "moment of truth" in simple consultation with a small number of key factors. As Wilson (1985b) has pointed out,

> "commercial decision-making is a very intricate and complicated matter, and the responsibility rarely rests with a single individual. Construction companies work within a framework of at least two unknown factors. Firstly, decisions are invariably taken at or towards the top of the management hierarchy of the customer's firm as opposed to some products and services where choice might effectively be decided on the shop floor. Secondly, in many instances, demand is sporadic or even one-off, so that the relationship between a construction company and its customers tends to be more tenuous than when there is a frequent, regular or predictable demand (Wilson, 1985b:14)".

Furthermore, the major decision-makers or persons who influence decision-making in the construction industry may not be from within the client's organisation as is traditionally the case with consultant architects, engineers and surveyors engaged to act on behalf of the client. As the procurement process evolves, different people will be involved in collective decision-making, their relative importance depending on their functional roles at that particular point in time. The various stages and persons participating in making purchasing or buying decisions have led Wilson (1985b) to identify six separate decision centres, each of which may both singularly or collectively be fulfilled by an individual. These decision centres, depicted in Figure 4.4, can be categorised as follows :

1. The Initiator - one who preconceives a perception or need for a product or project.
2. The Influencer - one who advises on the product or project specifications, location, specialisations and other aspects of the construction firm to optimally and effectively fulfill this need.
3. The Gateholder - one who provides a shortlist of appropriate firms for further consideration, which in the case of contracting, is likely to be derived from a prequalification exercise and through recommendations.
4. The Purchaser - one who is responsible for negotiating a bargain for the contract.
5. The Decider - one who authorises the ultimate approval to proceed on with the contract.
6. The User - one who is responsible for the internal management of the project or who will eventually occupy or operate the completed structure.

Within this framework, it seems that the intensities and types of marketing effort expended by any one construction firm would depend on whom such efforts are meant to be directed at. The concentration of appropriate marketing tools to different centres, commensurate with the requisite power and authority in these centres at suitable times, would appear to bring forth a higher probability of favourable outcomes for the marketers.

## 4.7. APPROACHES TO MARKETING WITHIN THE CONSTRUCTION INDUSTRY

The case for marketing in construction has now been established. It remains to be said that the approaches adopted by each participant within the construction system are likely to differ both according to the nature and circumstances under consideration. The number of participants within any one construction system therefore depends on the type and magnitude of the project under review. This may simply entail an individual self-employed builder for relatively minor repair and maintenance works at one end of the spectrum to a multiplicity of organisations brought together for mega-projects at the other end. The construction system therefore constitutes essentially a potpourri of diverse operating units or participants, each with its somewhat unique approach to marketing its products or services. Nevertheless, the fundamental marketing principles still appear to be of universal applications for each and every operating units within the system. These

operating units and their respective approaches to marketing are each discussed in turn as follows :

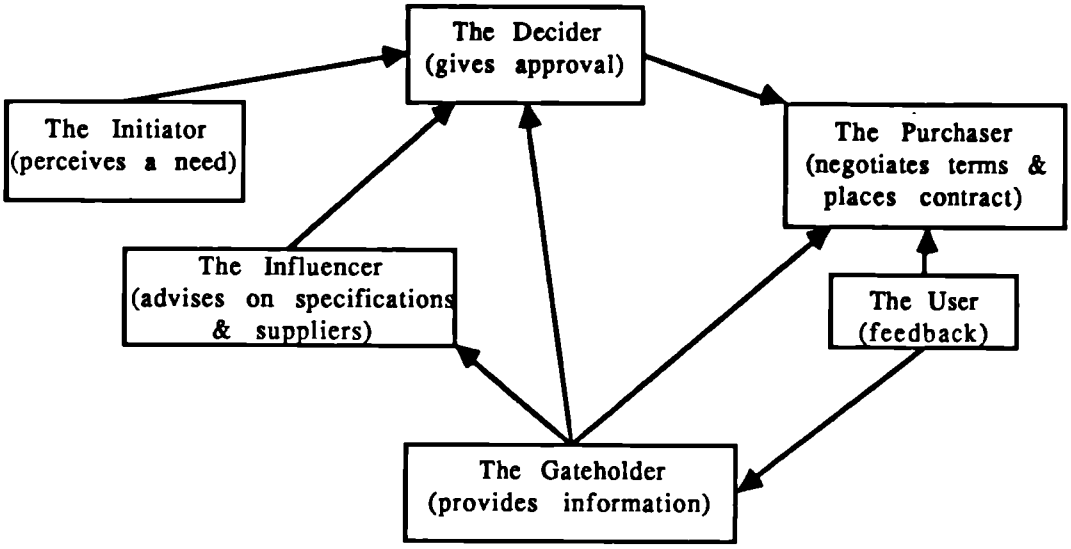



FIGURE 4.4. DECISION CENTRES FOR THE BUYING FUNCTION

(Source : Wilson A., "Identifying the power points and plugging in to business", Contract Journal, 12 September 1985, pp. 14-15)

4.7.1. SUPPLIERS

These may be regarded as suppliers of high value-added materials and components for which product differentiation and pricing would feature prominently in the marketing process. The category of product would include, for example, curtain walling panels, components for building automation and security systems, lifts and escalators, construction plants and equipment, etc. The industrial marketing of products would be of relevance here where the physical components are concerned. Additional contract maintenance and after-sales service would be appropriately classified under the services aspects of industrial marketing.

4.7.2. BUILDER MERCHANTS

Builder merchants traditionally adopt a wholesale distribution function, trading in the more conventional building materials such as bricks and timber, and other mix constituents such as cement and sand. These would again be associated with the industrial marketing of products.

4.7.3. PLANT HIRING FIRMS

Due to the heavy capital investment required for purchasing expensive pieces of plant or equipment, these firms provide a valuable service to contracting organisations within the industry where optimality may not be attainable as a result of a lack of repetitive and continuous usage. The provision of plant and equipment for hire would appertain to the services aspects of industrial marketing.

4.7.4. SPECIALIST FIRMS

The contributions from specialist firms would normally be akin to the services aspects of industrial marketing. Where the circumstances warrant a supply and fix arrangement with the firm providing the materials for fixing as well, these would then relate to both the products and services aspects of industrial marketing. The specialisms here can be diverse and wide-ranging and include firms offering prestressing, slipforming, high pressure grouting, etc.

4.7.5. SPECULATIVE HOUSE BUILDERS

Firms of this nature deal with what have been regarded as consumer durables, involving substantial capital expenditure on the part of each individual purchaser. The planned development of housing estates on a grand scale or the sporadic building of houses for sales are all prime examples of such ventures. These are all classifiable under the broad family of consumer durables which include, among other things, refrigerators, cookers, motor vehicles, etc., to name a few. Speculative house-building would be more concerned with the commercial aspects of consumer marketing.

4.7.6. SYSTEM BUILDERS

System buildings cover a wide array of types - from industrial buildings to commercial offices and residential buildings. Because of the large financial outlay initially required in setting up facilities for prefabricating components either on or off site, design tends to be standardised for mass production purposes. Assembly and erection processes are similarly fashioned along fixed patterns. In line with the suppliers, system builders are allied with both the products and services aspects of industrial marketing.

4.7.7. RENOVATION, REPAIRS AND MAINTENANCE COMPANIES

The approach to marketing depends on the nature of the work involved, which can either be consumer-bias (for example, repair and decoration works to a house) or industrial-bias (for example, routine servicing and maintenance works for the mechanical and electrical installations in factories). Both the consumer and industrial marketing approaches would seem to be relevant.

4.7.8. GENERAL BUILDING CONTRACTORS

A major proportion of the construction industry is made up of firms which fall within this category. A service is provided to construct a building or any other structures, previously designed by another operating unit, in accordance with what have been shown or described in drawings, specifications and bills of quantities. In the absence of a product directly offered by the contractor, the approach is substantially one which leans towards the services aspects of both consumer and industrial marketing.

4.7.9. CIVIL ENGINEERING CONTRACTORS

These comprise of firms with the abilities to undertake what can occasionally be intricate and complex projects such as tunnels, motorways, bridges, dams and

cross-country pipelines, etc. Firms within this category may be considered as an extension to both the specialist firms and general building contractors mentioned above. The inclination is generally towards the services aspects of industrial marketing.

4.7.10. PROFESSIONAL CONSULTANCIES

This category includes the whole range of architecture, engineering and surveying professions within the construction industry. Because professional appointments may be made by an individual domestic client or an industrial group, the marketing of professional services by consultancies, however subtle, may have to be adapted accordingly. Unlike other non-professional organisations which are not restricted by any codes of practice or bye-laws relating to their conduct of business, many of the traditional professions in the construction industry are, by virtue of their professional affiliation, not allowed to adopt a hard-sell marketing approach to soliciting businesses. Provided this practice is not condoned by their respective professional institutions, and depending on the types of clients who appoint them, both the industrial and consumer aspects of marketing services appear to be of relevance to professional consultancies.

The expositions above have been summarised in Table 4.1.

4.8. CONTRACT STRATEGIES AND THEIR EFFECTS ON MARKETING

The various approaches to marketing likely to be adopted by different operating units within the construction system have been dealt with above. To extend this analysis a step further, these can again be looked at through the linkages that exist between the different operating units for any one project. These linkages, which determine the relationships of the operating units within a project, seem to be dependent on the contractual arrangements adopted.

The evolution of contract strategies has been exceedingly noticeable in recent years within the construction industry. Numerous papers pertaining to alternative modes of procurement have been published, drawing attention to the wide range of possible tendering procedures and contractual arrangements available for the construction industry. The traditional mode of procurement was believed to be appropriate only for the relatively simple construction of the past. With the advent of new technologies, new requirements, increasingly sophisticated organisational structures and growing magnitude and size of projects, the traditional mode is now considered wanting in several aspects to cope with the multiplicity of problems inherent of such a scenario. This has given rise to a whole host of other arrangements, some of which appear to be replicas of others, albeit with only slight modifications therein.

It is not the intention here to discuss in details the various contractual arrangements, suffice to say that these have seemed to develop as a result of increasingly sophisticated clients' expectations and demands. Friedman (1984), for example, appears to suggest that different contract strategies are fundamentally

modifications made in the marketing direction to suit the clients' requirements. Gerwick Jr. and Woolery (1983), likewise, have advocated strongly the use of appropriate contractual arrangements in construction for marketing purposes. It was suggested that although no one contractual mode can be the most perfect arrangement in every case, an orientation in this direction can nevertheless be an effective marketing tool. The development of alternative contract strategies, which seems to has led to a consequential erosion of the traditional mode of procurement, revolves around a desire to both integrate the design and construction processes, to shorten the duration required for actual construction, and to tap on the contractor's expertise at the design stage.

| Operating Units | Approaches to Marketing |
|---|---|
| Suppliers | a. Industrial marketing (Product Aspects) for goods and other components<br>b. Industrial marketing (Services Aspects) for contract maintenance and after-sales service |
| Builder Merchants | Predominately concerned with the product aspects of industrial marketing |
| Plant hiring firms | Predominately concerned with the services aspects of industrial marketing |
| Specialist firms | a. Supply only - concerned with the services aspects of industrial marketing<br>b. Supply & fix - concerned with both the products and services aspects of industrial marketing |
| Speculative house builders | Consumer marketing akin to that for consumer durables |
| System builders | Predominately concerned with both the products and services aspects of industrial marketing |
| Renovation, repairs and maintenance companies | a. Services aspects of consumer marketing for the housing sector<br>b. Services aspects of industrial marketing for the commercial sector |
| General building contractors | Predominately concerned with the services aspects of both consumer and industrial marketing |
| Civil engineering contractors | Predominately concerned with the services aspects of industrial marketing |
| Professional consultancies | Services aspects of both the consumer and industrial marketing |

TABLE 4.1. THE MARKETING ORIENTATION OF OPERATING UNITS WITHIN THE CONSTRUCTION SYSTEM

## 4.9. SUMMARY

Firms need to create opportunities for themselves to find work, to secure contracts to justify their existence and to satisfy shareholders' aspirations for increased profitability and growth. These requirements provide the argument as to why marketing is relevant for domestic as well as international construction business. Its relevance can be supported by the various marketing tools adopted by the industry. In addition, the desire to maintain market share, the involvement with competitive tendering and the promotion of development proposals / projects within the construction industry all point to the clear need for marketing inputs if corporate objectives are to be achieved. While the relevance for marketing in the construction industry cannot be disputed, its mode of application is, however, less clear because of the very nature of the industry. The dichotomies (i.e. tangible / intangible, product / service, industrial / consumer, etc.) which prevail are among the features of the construction industry which give rise to this lack of clarity. The various contract strategies adopted and the complexities of the decision-making process within different professional groups in the industry have acted collectively to complicate the marketing function even further. While relevance can be established readily, more effort is, however, required to clarify the marketing tasks and functions between different operating units in the construction industry.

REFERENCES


1 Baker M. J., "Marketing : An introductory text", Macmillan Press, 1979.

2 Black T. P., "What do we mean by the marketing mix ?", in Straton J. (Ed), "Marketing in the construction industry : Evening Lectures 1970-1971", Institute of Marketing, Construction Industry Marketing Group, 1971, pp. 69-80.

3 Claxton H. K. H., discussion paper in "Management of International Construction Projects", Institution of Civil Engineers Conference Proceedings, Thomas Telford (London), 1985, p. 151.

4 Cox V. L., "International Construction : Marketing, Planning and Execution", Construction Press, 1982.

5 Fisher N., "Marketing : Dispelling the myths", Building, 7 March 1986, p. 29.

6 Friedman W., "Construction Marketing and Strategic Planning", McGraw-Hill, 1984.

7 Gerwick Jr. B. C. and Woolery J. C., "Construction and Engineering Marketing for Major Project Services", John Wiley & Sons, 1983.

8 Gray J., "Promotion needed to fight competition", Financial Times, 12 April 1985.

9 Gronroos C., "The Nature of Service Marketing", Singapore Marketing Review, Vol. VII, December 1983, pp. 15-20.

10 Hamilton J., in "Marketing : Institute of Building Seminar", Building, 31 October 1969, p. 98. (Sir John Hamilton, then Director-General of the Institute of Marketing in his opening address.)

11 Hardy L. W. and Davies E., "The Marketing of Services in the UK Construction Industry", European Journal of Marketing, Vol. 17 No. 4, 1983, pp. 5-17.

12 Jepson W. B. and Nicholson M. P., "Marketing and Building Management", Medical and Technical Publishing Co. Ltd., 1972.

13 Kreamer P., "Going to market", Building Technology and Management, 23 September 1985, pp. 3-4.

14 Kreamer P., "Direct mail is the weapon but where's the target ?", Building Technology and Management, 23 October 1985a, pp. 11-12.

15 Kreamer P., "Marketing - signs, sites and signboards", Building Technology and Management, 23 November 1985b, pp. 6-7.

16 Kreamer P., "Marketing - A strong identity creates a memorable image", Building Technology and Management, 23 December 1985c, pp. 20-21.

17 Levitt T., "Marketing Intangible Products and Products Intangibles", Harvard Business Review, May / June 1981, pp. 94-102.

18 McDonald M. H. B., "The Theory and Practice of Marketing Planning for Industrial Goods in International Markets", Unpublished Ph.D. thesis, Cranfield Institute of Technology, January 1982.

19 Moore A. B., "Marketing management in construction : A guide for contractors", Butterworths, 1984.

20 National Economic Development Office (NEDO), "Construction to 1990", HMSO, 1984.

21 Navarre C. and Schaan J., "International engineering project management : key factors in a changing industry", International Journal of Project Management, Vol. 5 No. 4, November 1987, pp. 238-245.

22 Nicco-Annan J., "Multinational Construction Companies in Developing Countries : Theory and Practice", Unpublished M.Sc.(Arch.) dissertation, University College London, September 1987.

23 Ofori G., "The Construction Industries of developing countries : The Applicability of existing theories and strategies for their improvement and lessons for the future. The case of Ghana", Unpublished Ph.D. thesis, University College London, September 1980.

24 Risley G., "Modern Industrial Marketing", McGraw-Hill, 1972.

25 Seymour H., "International Investment in the construction industry", Unpublished Ph.D. thesis, Department of Economics, University of Reading, October 1986.

26 Trench P., "Marketing - Does it apply to Builders ?", Building Technology and Management, April 1969, pp. 83-84.

27 Wilson A., "Marketing : A philosophy for success", Contract Journal, 31 January 1985, pp. 16-17.

28 Wilson A., "How to win orders by studying the service aspect of contracting", Contract Journal, 13 June 1985a, pp. 12-14.

29 Wilson A., "Identifying the power points and plugging in to business", Contract Journal, 12 September 1985b, pp. 14-15.

30 Wilson A., "Plan your strategy to keep or court a building client", Contract Journal, 17 October 1985c, pp. 14-15.

CHAPTER FIVE

# THE FOUR SCHOOLS OF MARKETING THOUGHT IN CONSTRUCTION

## 5.1. BACKGROUND

Having dealt with the relevance of marketing in construction, attention is now turned to considering its acceptability or otherwise in practice. In the course of research and reviewing the literature, four schools of thought have become noticeable. While there are some who persistently maintained that marketing is not applicable within the framework of construction, others have pragmatically acknowledged its significance albeit amidst some confusion and uncertainty over its true meaning. There are still others who have actually applied or invoked the marketing concept in practice but have nonetheless remained both blissfully or partially unaware of such an application. Finally, there are yet others who have actively canvassed the role of marketing in construction and argued against the causes of those who have actually misinterpreted the underlying fundamentals or misunderstood the rudiments therein. Each of these will be dealt with in turn in this chapter.

## 5.2. MARKETING NOT APPLICABLE IN CONSTRUCTION ?

This section examines the first school of thought in which proponents suggest that the marketing concept is not applicable in the construction industry. Two main reasons appear to form the backbone for this contention.

### 5.2.1 APPARENT LACK OF UNDERSTANDING

In running through the literature and from meetings with practitioners, one thing becomes quite clear. The construction industry appears to lack an understanding of what marketing entails and hence, has not been very receptive in adopting its use within the industry consciously. Bell (1981), for instance, has noted that marketing as a concept first gained prominence in the 1950s in many consumer fields in the UK and was ranked highly by management and accepted as a vital business tool. However, in the case of the construction industry, for various reasons, there has been a reluctance to accept this concept nor institute the organisational changes considered necessary for its adoption. Such a reluctance appears to be a result of a hesitation borne out of the difficulties one faces in comprehending its application in the diverse activities of the construction industry. As the holistic model in Figure 4.3 in the previous chapter shows, the numerous interfaces and activities within the construction system may have compounded the complications further. Moore (1984), as a result, observes that there was, and still is, some confusion over the true meaning of marketing within the industry, which consequently led to the formation of opinions suggesting the inapplicability of marketing techniques for construction firms. Hardy and Davies (1983), in their search for a distinctive set of service marketing features relevant to the construction industry, encountered similar responses.

Although there have been both direct and indirect rejections of marketing

application and its relevance in construction, these appear to be few and far between. Quite often, this seems to arise as a result of an inadequate understanding of what marketing actually entails. Neo (1975) in his work on international construction contracting, for instance, postulates that marketing is less pronounced and therefore, by implication, inapplicable in construction because the product normally under consideration is only built after it has been sold. This appears to be a sharp contrast to what Drewer, Hillebrandt and Wykeman (1972) have pointed out in their works on the creation of opportunities for international trade by the building industry. They suggest that

> "As with the consultants, contractors do market their special skills (good examples being large Dutch reclamation and dredging firms who operate in many parts of Europe) but exactly what they are selling or offering on any occasion is variable, from a near-total supply of services to simply management and organisation (Drewer, Hillebrandt and Wykeman, 1972:41)".

Neo (1975) seems to has missed out on this point completely and more importantly, the crucial implications which can be derived therefrom. Neo's (1975) stance is not too difficult to understand in the light of Moore's (1984) explanation that indulgence in this type of activities would not be perpetuated fervently in the construction industry since the firms themselves do not manufacture products but build whatever the client or his representatives require. The only exception seems to lie in speculative house-building.

To examine this issue further and to find out whether there has been a change of opinion since Neo's (1975) contention in 1975, contact was made with Neo in 1987 and an interview was subsequently arranged in Singapore to clarify this position[1]. During the course of the interview, no reference was made to Neo's (1975) own postulation submitted more than a decade ago. In the ensuing semi-structured dialogue that followed, Neo now appears to has withdrawn his original conviction by concurring that marketing does indeed has a role in construction, albeit of a lesser significance for the smaller companies. Despite a somewhat pessimistic note, Neo stresses the need to look at the normal marketing function for the construction industry which, in itself, is already a difficult area for study. Neo also continued on to suggest that marketing only applies to very large organisations within what seems to be the context of international contracting.

### 5.2.2. THE INFLUENCE FROM PRICE

The confusion and lack of understanding over the marketing concept appears to be widespread. For the uninformed, this perception seems to hinge on an undue emphasis placed on price alone. This was found to be prevalent from the numerous discussions carried out during the early stages of this research exercise. In a research seminar on this subject presented by the writer within the Bartlett School of Architecture and Planning, and attended by professionals mainly from other disciplines outside of the building profession, similar resistance was encountered

when the marketing view was put forth for consideration and application in overseas contracting[2]. As one participant argues, the involvement here tends to include mega projects such as dams, power stations and other civil engineering landmarks. The nature of these transactions is therefore unlike the marketing of tangible products. Numerous references were also made to what the participants have thought to be the only crucial issue in deciding who wins the bid - and that basically lies in the bid prices submitted by the tenderers.

The dominant influence from price is not a new phenomenon. As far back as two decades ago, Trench (1969) has suggested this as a typical reaction from builders who have, for various reasons, shunned marketing and who in cries of despair, can only offer the following argument :

> "We are a service industry - we can't make products - we can't create demand ... We can only tender for work created by others and since price is the dominating criterion, marketing cannot help (Trench, 1969:83)."

As price cannot be separated from the service or product and which often seems to be the only factor around which propositions develop, such an assertion is therefore understandable. Pricing has always been a major activity as it is essentially the only objective criterion upon which the client selects the firm for the award of the contract, and upon which a firm assesses its competitiveness as against others. It is therefore not too difficult to appreciate why price has frequently been brought into the limelight at the expense of marketing. The pricing function in construction may either be :

1. Cost-oriented, where price is built up based on what it costs to complete the works contracted for, plus a mark-up to cover overheads and profits; or
2. Demand-oriented, where price is a function of what the market can bear, based on the seller's assessment of the buyer's desire and willingness to pay for the product or service; or
3. Competition-oriented, where price is fixed in relation to those of competitors.

All three orientations clearly occur in the industry. Competitive tendering, for instance, borders on both the cost-oriented and competition-oriented pricing, whereas pricing for speculative house-building tends to be demand-oriented. But is price really the only criterion ? Again, this would seem to depend on the situation under consideration. As Brech (1971) has rightfully pointed out,

> "If the award of contract is by lowest tender to the lowest bidder, there is little that the individual firm can do by way of marketing activities to influence the outcome, except in the sense of maintaining such overall efficiency that it can win the tender by lowest bid and yet achieve a target profit (Brech, 1971:39)."

This would appear to be the case in open tendering where the lowest bidder in all probability is likely to win the contract. However, with the advent of other tendering procedures and increasingly sophisticated client's requirements, price alone is now

inadequate and has, as a matter of fact, been relegated to a role of lesser significance. The need for prequalification is an appropriate illustration where the notion of price is not yet even considered, let alone submitted in fulfilment of a tender. As a result, before firms are even given the opportunities to submit prices, they are first subjected to close scrutiny by the client or his representatives for inclusion or otherwise into a shortlist of tenderers. Moore (1984) follows this argument through by reasoning

> "that price is no longer the sole criterion, because a firm does not get the opportunity to quote unless it has met the criteria of suitability, competence, experience, resources and stability which determine whether it will be considered for inclusion in the tender list (Moore, 1984:14)."

In responding to enquiries and invitations for prequalification, there remains the opportunity for promoting a construction firm by the manner in which attached questionnaires are filled out, and by the professionalism in drafting out the covering letter for return with the completed forms. Such a persuasive discourse has similarly been stated by Risley (1972) who, while admitting price and pricing decisions to be important, recognises price as a variable rather than a high-level constant which influences purchasing decisions across the board. A lower price, as it stands alone, may also be looked upon as an indicator of poorer quality. Risley (1972) continues at length to reiterate that

> "In competitive bidding, unless one has a unique product, price is apt to be quite important. But even here, it is not always the major determinant. Not all such contracts are awarded to the lowest bidder. The actual selection most frequently involves considerations of many other factors, technical excellence and both product and consumer service. ... In industrial marketing, price is used far less as a competitive weapon than it is in consumer marketing. Industry is more knowledgeable. Industrial buyers are far more interested in delivery, service, and general capability and reliability of the seller. Vendor evaluation is a serious consideration in industrial buying (Risley, 1972:189)."

What has not been clearly spelled out here is the almost complete eradication of price as a criterion for selection. The proposition here spontaneously raises a question of degree. While price may be diminishing in significance, other non-price factors may be growing consistently in their relative levels of importance. The adoption of price as a major selection criterion is understandable within the context of other alternative qualitative criteria. The attractiveness of using price to objectively counteract subjectivity in decision-making has, in the main, led to its frequent use and the assignment of a heavier weighting which eventually causes other qualitative factors to be concealed indiscriminately. As to why this has been put into practice despite the apparent reticence of what may consequently turn out to be important factors, Baker and Orsaah (1985) explain that these

> "other factors may have been considered already during a prequalification exercise, designed to assess the potential bidders' ability to meet the technical

> specification and other requirements. This removes or reduces the possibility of basing the final decision on subjective factors (Baker and Orsaah, 1985:31)."

The discussion on price has so far been confined to within national boundaries. However, where the procurement of foreign contracts is concerned, there is unlikely to be much difference in practice. In so far as international competitive bidding has been adopted by the host countries or mandated by either the donor countries or international lending agencies, short of a prequalification exercise, price again appears to be the dominant factor which influences the clients' purchasing decisions. The availability of funds for construction and development programmes has, however, been seriously curtailed in recent years as a result of, firstly, the inability of debt-ridden countries in repaying their loans and, secondly, in the growing conservatism of both the funding agencies and donor nations in extending attractive credit terms and generous aid packages. The crucial withdrawal of financial assistance from most developing countries has led instead to a search for alternative financial arrangements - a role increasingly expected of foreign construction firms interested in contract procurement. As a result of a shortage of funds, of foreign exchange restrictions and the general lack of a self-financing ability, price no longer features importantly among the client's list of priorities. In an interview with the Executive Director of one of U.K.'s leading international contractors, Building (1986) notes that

> "It does not follow that whoever puts in the lowest bid or the cheapest proposal gets the project. One only has to see the growth of counter trade in the last few years. At the end of the day, it is a question of financial engineering and initiative - the best terms, the lowest interest payments over the longest repayment period. And there's the vital link to the British Government aid and support (Building, 1986:40)."

Developments along these lines in the competitive international markets have been both dynamic and innovative as construction firms from different nationalities scrambled their resources to provide the most attractive and comprehensive financial packages possible for their clients. This inevitably incurs considerable preparation and marketing costs, both locally and abroad. In offsetting and minimising losses, firms have tended to be cautious and selective in their areas of concentration. However, the inclusions of such financing proposals have become acutely sophisticated as both the private and public sector clients in developing countries inculcate an awareness of the strong bargaining positions they are in. They are, at the same time, desirous of timely completion programmes which will in turn assist in the development of their own indigeneous industries. Aggressive financing arrangements which are previously conceived as powerful marketing tools have now been juxtaposed further by yet other non-financial considerations. Navarre and Schaan (1987), for instance, have recognised that

> "a key success factor in winning international contracts has become the ability

> to structure proposals in a way that involves local owners, suppliers, subcontractors, management and engineering. The transfer of technology, supported with training programmes for local specialists or technicians, has, in some cases, become as important, if not more so, than the price or the financing (Navarre and Schaan, 1987:241)."

All these have today become important factors for marketing international construction services.

5.3. MARKETING APPLICABLE IN CONSTRUCTION BUT NOT WELL UNDERSTOOD

Although the marketing concept has been referred to and thought to be implemented in practice, some confusion still appears to remain. This phenomenon could have been attributed to a lack of understanding arising out of the wide scope covered by a marketing orientation. The distinction between the various aspects of marketing functions and principles, as a result, seems to has become blurred. Familiarity with the aspects of any one marketing function (for examples, selling and advertising) would, as a natural course of progression, misleadingly lead one to assume that marketing is all that particular function entails. Resources would then be diverted away from what would otherwise be their gainful employment. At worst, the deployment may be self-defeating if this has been inconsistent with the structural demands of the market-place. As far back as the late 1960s, Vassie (1969) has already observed a general lack of understanding by construction firms over the meaning of marketing despite their acceptance and adoption of the concept in practice. What the marketing functions are, and how these can fit into their organisations to help achieve companies' objectives have not been appreciated fully. Hamman's (1971) work, which investigates how international construction firms search for overseas opportunities and how management decisions within these firms are made based upon the information gathered, seems to portray similar confusion. Hamman (1971), while differentiating between manufacturing business and contracting business, suggests that the role of salesmanship is more pronounced in the former than in the latter, and that as a result, product promotion and advertising assume a more prominent role in manufacturing than in contracting where dependence on these sales methods is less pressing simply because a product does not yet exist before construction. The contradictions in Hamman's (1971) expositions became clear when he went on to suggest that the efforts of international contracting firms in searching for tendering opportunities may be both direct and indirect. While the direct route takes the form of gathering intelligence, he adds that the indirect efforts are those which adopt a marketing nature and which involves the use of advertisements and public relations to make known the firm's existence and its offerings to potential clients and their representatives. In so doing, Hamman (1971) appears to has voluntarily refuted his earlier contention.

Hillebrandt (1987), in reviewing the management theory and practice of contracting firms in the UK, has held in high esteem the practical benefits of marketing principles in construction. While acknowledging the advantages contractors would

have and could have derived from a more logical approach to thinking about diversification policies and marketing, and in determining what markets to operate in within the overall business strategy, Hillebrandt (1987) also continues on to suggest that

> "The first requirement for contractors is to decide what it is that they are actually selling (Hillebrandt, 1987:924)."

This perception would seem to be well placed within what the critics have all along regarded as a classical economic farce which bears on a product-orientation and its associated production problems. However, the basic fundamentals of the marketing concept denote otherwise. Far from deciding what they are actually selling, the marketing concept requires firms to, firstly, identify and anticipate what their clients' needs are and, secondly, to orientate their production to satisfy these needs. In an earlier piece of work relating to small firms within the construction industry, there seems to be a similar orientation towards production when Hillebrandt (1971), in testifying to the attention already paid to marketing within the industry, states that

> "There is no evidence amongst smaller firms except in a few cases quoted as exceptional, that firms have 'marketed' their services by deliberately determining what type of service they wish to sell and then taking steps to seek out potential customers. Even speculative house builders have traditionally waited for clients to find them, rather than adopting a policy of seeking a type of customer and linking the products to the customers' demands (Hillebrandt, 1971:30)."

This malapropism can hardly be circumvented in the light of what appears to be an ubiquitous desire to achieve economies of scale through the repetitive applications of costly capital equipment, and in overcoming the complexities faced in attaining optimal resource utilisation. As Cochlin (1970) has rightfully pointed out, contractors as a result have frequently allowed their marketing policies to be dictated by the resources and skills they possessed rather than the demands of the market place.
Further misconceptions can be found in the field of professional services for the construction industry where the terms "marketing" and "selling" have been used readily and interchangeably without any recourse to further explanations. Drewer, Hillebrandt and Wykeham (1972), for instance, in their works on international trade relating to the building industry, have demonstrated this effect amply by stating that

> "Professionals are not usually permitted by their code of conduct to compete with each other on price. This however does not preclude the use of aggressive 'selling' techniques by professional organisations on behalf of all their members, in particular where their 'special skill' itself has to be 'sold'. New design techniques such as 'box girder' bridge construction are 'sold' on economic and aesthetic considerations while whole ranges of skills such as traffic consultancy are 'marketed' by professionals. (Drewer, et. al, 1972:40)."

Whether the use of terms in this manner can be attributed to what may simply be a matter of semantic differential remains unclear. While one may argue against such a distinction on the grounds of triviality, this is however unlikely to be valid because selling is, after all, one among several other functions of marketing.

## 5.4. MARKETING APPLIED IN CONSTRUCTION BUT NOT RECOGNISED AS SUCH

It can be recalled that marketing has been described as a passive, self-adjusting, self-generating mechanism approached from two different angles. The first perspective views marketing from an ecological dimension amidst the criticisms and dismissal from other commentators who argued that such an approach is unlikely to be helpful in practice. Although it is clearly not the intention here to partake in this debate further, one would have thought it worthwhile to adopt this analogy to explain why the intensity of marketing awareness has not been overtly encouraging within the construction industry nor surfaced above the level of acute consciousness. The number of firms who publicly professed the relevance of marketing in their practices may well only be the tip of the iceberg. There may be many more who have actually applied it at one time or another but have not realised or recognised it as marketing put into practice first-hand. This would seem to be the extended result of a natural in-built survival instinct within the ecological system. To carry this argument through would lead one to the second perspective where acceptance of and familiarity with the system results in its obliteration. This resultant oblivion again seems to be the result of a widespread adoption by every conceivable segments of society. Its adoption no longer becomes unusual in the routine activities carried out daily. Instead, any other deviation away from this accepted norm would be regarded as a misnomer. One could therefore safely assume every commercial activity to be basically the means for marketing success. The practical implications of this observation can be seen in the works of Hardy and Davies (1983) who, while deploring the paucity of marketing activities organised by construction firms, concluded that some of these firms seem to be blissfully unaware of the marketing existence. Consequently, this would seem to reflect the low level of interest in marketing methods prevalent in the construction industry. Trench (1969) perhaps sums up the situation neatly when he notes that

> "As yet, many builders have no clear idea what marketing means, few believe that it applies other than to a small sector of the contracting industry and still fewer believe that, even where it is relevant, it will bring more profit than it costs. ... Nevertheless, they are involved in marketing decisions, whether they like it or not and whichever way they make them (Trench, 1969:83)."

While this observation may have been made way back in 1969, nonetheless, its validity still appears to hold true today.

A further opportunity for testing these propositions arose when the writer, adopting the role of a participant-observer, attended a meeting organised jointly by the ICE's Engineering Management Group and the IMechE's Committee on

Engineering in Developing Countries[3]. The subject-matter of this meeting was on "Maintenance and rehabilitation versus new investment in developing countries". During the course of the meeting and the discussions which followed, no mention was made at all to marketing when the main theme seems to border on how firms can effectively and profitably undertake foreign contracts. Most of the speakers have instead chosen to speak on economic, production and technical issues, subject-matters with which they are comfortable considering their background, experience and training. Wrighton (1988) came closest to the calling when he suggests that

> "In the developed world, much new equipment is becoming oversophisticated for developing countries. 'Yesterdays Technology', although well suited for developing countries, is uneconomical for producers to continue production (Wrighton, 1988:para. 7)."

This point does not seem to be well reasoned for if developing countries are unable to obtain "Yesterdays Technology" from their traditional sources in today's market-place, they would not hesitate to turn to other non-traditional channels to secure what they actually need and not what their traditional sources can supply. Thus, the competitiveness of the traditional sources in the international market can be severely curtailed if restrictions are imposed as a result of production constraints. The logic of Wrighton's (1988) argument appears to be a reaction which can lead to an unfavourable operating condition in the future. The natural instinct to react in this manner is clear - there is an obvious need to maintain market shares, and to keep poaching competitors at bay, etc. These are all important issues in marketing. Yet the concept of marketing was neither mentioned nor referred to. Instead, the unanimous opinion seems to suggest that production is what really matters. Mass production would be desirable and ad hoc production on a one-off basis uneconomical.

The proceedings of this meeting do not appear to reflect an ignorance of marketing importance, but rather indicate a lack of an awareness that what have been expounded and discussed actually concerned marketing. Nonetheless, in marketing the respective organisations they represent, as well as their products and services, all the speakers seemed to have failed to recognise that this is what marketing is all about. Developing countries today no longer simply buy what they have been offered but only purchase what they need. An understanding of this nature can be drawn from the works of Drewer, et. al. (1972). In relating capital flows with construction activities across national boundaries, the spontaneous flows in technology, equipment, professional and managerial skills are thus activated. Yet, Drewer, et. al. (1972) argue that such capital flows frequently carry with them services and standards which are not necessarily related to the needs of the recipient country. Risley (1972), on the other hand, has been more pragmatic and believes that

> "On a corporate level, the multinational company should consider carefully the needs of people in each nation. It should be a reflection of their wants, not an imposition of ours. In organizational structuring to do business abroad, the creation of an atmosphere of partnership in the total enterprise, rather than that of an aggressive foreign firm, can help significantly (Risley, 1972:159)."

With initial entry secured, there remains a consideration of its methods of application and the role marketing has in the host countries. As Kinsey (1988) points out in the case of developing countries, numerous obstacles inevitably appear because

> "In many instances, marketing is hardly used at all and where it is, there are many imperfections in the way in which it is applied (Kinsey, 1988:141)."

## 5.5. MARKETING APPLICABLE TO CONSTRUCTION

The last school of thought concentrates on those who appreciate and acknowledge the benefits that can be derived from a methodological understanding and application of the marketing concept to construction. This would serve as a counter-argument to the claims put forth by others in undermining and rejecting the practicalities of marketing in the daily activities of the construction industry. As opposed to the latter whose assertions apparently bear little resemblance to the realities encountered within the industry, the proponents of construction marketing claim their conjectures are based on facts gathered from both research and past experiences. While Bell (1981), and Hardy and Davies (1983) have, for that matter, looked into the marketing practices of construction firms in the U.K., Wheeler and Phua (1987), likewise, have researched along similar lines in Singapore. The results of these works have revealed some findings which are exceedingly consistent in nature. Although there was understandably no attempt made to suggest that the success of a firm can be attributed to specific marketing strategies, there was sufficient evidence to denote a strong relationship in this direction. Firms that have adopted the marketing concept were found to be better organised structurally to both create and capitalise on market opportunities.

While commerce marks the beginning of a formal procedure to facilitate exchange, marketing is concerned with the gathering of market information and identification of opportunities to facilitate transactions on terms favourable to the marketer. Its application is therefore of relevance to every conceivable business activity. However, in what appears to be a reference made outside of speculative house-building, Jepson and Nicholson (1972) observe that

> "In an age of exposure to mass media of communication, we tend to think of marketing as highly charged persuasion to purchase mass produced goods. Because building seeks no mass markets and is not promoted by pseudo-superlatives and hidden persuaders, it must not be thought to be uninvolved in marketing. ... Obviously, for its health, the business of building should be directed towards the most favourable ventures. If effort is to be exerted, then both its direction and magnitude are important. The function of marketing is to give direction (Jepson and Nicholson, 1972:1)."

Consistent with the observation noted earlier, an appreciation of marketing within the framework of construction has never been acceptable because of a widespread misunderstanding of what Fisher (1986) has described as a complex subject. In an attempt to provide guidance for a clearer understanding amongst practitioners within the construction industry, Fisher (1986) considers it to be both mythical and fallacious to assume that :

1. Marketing can be picked up readily and as such, the need for marketing training and education does not arise.
2. There is no difference between marketing and selling when in effect, the latter is only one among several other functions of the former.
3. Customers entertainment, slick sales literatures and barraging salesmen are what marketing is all about, and
4. For various ethical and professional reasons, marketing has no place among the construction professions.

Firms which have adopted marketing as a distinctive orientation will first need to devise a marketing plan and utilise all the techniques available to achieve their objectives. In so doing, policies and strategies are expected to be set consciously to provide guidance in planning for the company's future turnovers and margins. However, for various reasons, construction firms do not frequently appear to follow this categorical approach to operations. It would seem that in the absence of a marketing plan, profits can only be hoped for and jobs bumped into purely by sheer chance. Nevertheless, the adoption of this approach is not a panacea in itself. There are counter-arguments which purport to limit the effectiveness in which marketing planning can be gainfully employed, the most prevalent of which relates to both the erratic and uncertain manner in which market forces interact. Since consultant architects, engineers, developers and public sector agencies cannot be influenced easily where the award of a contract is concerned, it has been argued that the prior selection of a desirable market segment and its attendant planning are consequently of little assistance. Planning difficulties, it has been claimed, may again be aggravated by government policies aimed at the construction industry for the purpose of regulating the national economy. All these reservations would seem to accord well enough to render the purpose of planning invalid ! Yet, as Trench (1969) reasons,

> "The arguments appear plausible, but in fact they reinforce, not refute, the need for market planning (Trench, 1969:84)."

Hillebrandt (1971), in a report commissioned by the Committee of Inquiry on small firms, endorses a similar opinion. In urging smaller builders within the construction industry to exercise greater concerted efforts to market their products, to market themselves and promote a better public image, the Report concedes that the extent to which these firms adapt themselves to the marketing concept may ultimately

determine both their share as well as the absolute size of their total market. In the conclusions to this Report, Hillebrandt (1971) observes that the smaller firms have traditionally relied on the clients approaching them for business, normally as a result of recommendations from others or continuation from previous dealings. There is, however, Hillebrandt (1971) adds, scope for the development of marketing within these firms as a management specialism.

Marketing, as such, should be treated as a managerial function and not merely as a service to management. Based on previous experience, Moore (1984) has been instrumental in pointing out that the initiation of marketing into construction management can bring about enhanced turnover and profitability, the proper adoption of which can also highlight which types of work are more viable, both locally and abroad, in addition to when and where opportunities are likely to arise, and how demand can be created. The impression seems to be one which calls for a greater appreciation and understanding of the marketing concept, its application in construction and how the accruable benefits may be derived. This demands a closer scrutiny as to how the concept may be deployed fruitfully within the industry.

## 5.6. SOME GENERAL OBSERVATIONS

The case for support is now established. Yet, while the number of marketing courses for construction firms seem to have sprouted, the relevant literature has remained marginal. Otherwise, the marketing concept and its functional uses have been given ample coverage in a wide range of publications even though these are of a broad and general nature which relate predominately to consumer products. While theorising within the context of consumer goods marketing has rapidly progressed from the domestic scene to the international arena, the same cannot be said of construction where a lacuna still persists. Cochlin and Dix (1970) underline this situation clearly when they note that

> "What does seem to be lacking is a source of information that concentrate on marketing as it applies to the construction industry. This is an understandable omission, if for no other reason than that too little has been studied and written whereas in other industries, in particular consumer and consumer durable products, there is an abundant flow of commentary, case histories and other helpful and sometimes factual information about marketing expertise in action (Cochlin and Dix, 1970:107)."

One may, however, argue that this is an unjust contrast made between construction, which in the case of contracting ultimately converges on services, and tangible consumer goods. A comparison of par with par is therefore desirable. It would be necessary to expand on the numerous independent but interrelated professions which go to make up what has been termed "construction services". Any sizeable construction project would therefore require the services of the architectural, building, engineering and surveying professions. These professions may be used as surrogates for construction services. In this respect, Kotler and Connor, Jr. (1977) agree that marketing theories and practices are moving gradually into the services

industries although their role therein still tend to be limited. In any case, Kotler and Connor, Jr. (1977) suggest that

> "It has achieved some utilisation in banks and airlines, to a lesser degree in insurance, brokerage, and public transportation, and still less in law, accounting, management consulting, medicine, architecture, and engineering (Kotler and Connor, Jr., 1977:71)."

This expression is, however, not without reference to the constraints imposed as a result of the need to conform with various professional codes of ethics. As Wilson (1985) has indicated earlier, a wider margin of safety can be assured if construction in marketing terms is looked upon simply as an offer of service. This is not to say that services is all that matter in construction marketing. In the context here, Wilson's (1985) contention would appear to be simplistic although it is not wrong to suggest that the marketing of services merits far more attention than product marketing in view of their relative difference in complexity. Construction, encompassing a wide range of products and services, could include combinations between product-and-product, service-and-product, and service-and-service interfaces. Each interface would warrant its own unique style of marketing practice. The approach is therefore one of situation-specific, each tailor-made to suit the requirements of each particular case. Participants within each interface would then be expected to operate within a framework peculiar to that subsystem. The marketing principles for every case, however, remain unchanged.

Parties to a construction project can be categorised broadly into the client, consultant, main contractor, subcontractor and supplier. This classification may still be applicable regardless of the differences in construction nature (which could be residential housing, commercial buildings or civil engineering works, etc.) or the types of contract strategies used (which could be the traditional arrangements, design and build contracts, management contracting, etc.). Every sizeable construction project entails a network of interlinked activities which involves various parties at one time or another. Each transaction marks the beginning of a marketing application, both passive and active, as the vendor conveys and sells the credibilty of his products or services to prospective customers.

Having a product or service is simply not enough. Customers have to be persuaded and convinced before the opportunity to put in an offer can even arise. Without jobs, the existence of a firm becomes irrelevant. Although the procurement of work and the desire for profits appear to go hand in hand, the former seems to create a greater sense of urgency because the survival of the firm is now at stake. However, if every firm in the industry are aware of this phenomenon and have successfully taken measures to overcome their respective weaknesses, how would a prospective customer then decides who is better considering the fact that the products or services on offer now appear to provide him with the same benefits he is looking for ? Without venturing into the contentious field of qualitative perceptions, this would

seem to be analogous to making a selection between a Mini and a Fiat, or a Yamaha and a Honda. Although price may have a major influence on the decision here, this does not seem to be true in every case. Instead, marketing by the vendor seems to be the prime mover.

The marketing intensities between parties in the construction system may also vary in their degree of complexity depending on their familiarity with the product or service considered. Clients are becoming increasingly more sophisticated and knowledgeable than in the past and the setting up of in-house expertise within the larger organisations has certainly gone a long way in enhancing value for money. The difficulties in persuading prospective customers that the product or service is much better than those offered by others may appear to be resolved substantially if there have been satisfactory dealings in the past or recommendations from other satisfied clients. Marketing of new products and other innovations within the industry tend to pose more hurdles until the prospective customer is convinced of their viability in fulfilling his requirements. Where these products and innovations are commissioned at the request of an existing client, the marketing role does not appear to be significant until such time when these can be offered to yet other prospective customers. This applies similarly to new clients although it is no longer realistic now to assume that their loyalty to the firm will remain unmoved. Hence, there is a constant need to look for new clients and search for new opportunities. Unless there is a strong monopoly, poachers are constantly at bay to offer similar, if not better, products and services. Although there may be initial marketing problems in securing public acceptance of new and innovative products or services, ironically, these provide the occasional unique selling propositions which give the supplier an advantage over its competitors once these problems can be resolved. Innovative building products and systems seem to yield more competitive contents than services as a result of their patentability. In contrast to patentable products, services tend to be readily assimilated and copied both in the design office and on site. The strategic competitiveness of New/Existing products and services within New/Existing markets have been considered by Ansoff (1968) in his ubiquitous matrix. Ansoff's (1968) concept has been adapted here for the construction industry in Figure 5.1. This has been expanded to encompass products, services, domestic markets and overseas markets. A three-dimensional breakdown has been adopted to demonstrate the viability of New/Existing products and services within New/Existing domestic and overseas markets.

Although construction services comprise of inputs from both the consulting and contracting firms, the empirical studies within the corporate context of this thesis will, however, concentrate on the marketing practices of the latter. The consulting professionals are frequently constrained by numerous restrictions which limit their operational freedom. In upholding their prestige and professionalism, any activity which is contrary to the good name of their profession is, therefore, understandably

taboo. Ethical considerations which discourage members of the same profession from competing against one another, have seriously curtailed the role marketing has in the various professional disciplines. Regulations laid down in codes of conduct are expected to be followed faithfully. Any contravention is likely to lead to severe penalties and, in the case of recalcitrant offenders, possibly debarment from practice. Thus, depending on the nature of the violation, the consequences can be quite drastic. Commercialism is excluded through the adoption of a fixed scale of fees which all members are expected to abide. Similarly, advertising can only be in selective areas and members are not allowed to peddle nor sell their expertise and services indiscriminately. As a result, marketing has been implicated erroneously by equating its role with that of selling. Despite the changing expectations of clients and increasing competition, the barriers to marketing within the professions have remained largely unchanged. As observed by Kotler and Connor, Jr. (1977),

> "Many professional practitioners ... deny a role to marketing or, if they do accept it, have a very inadequate idea of its content and how it can be implemented in a firm (Kotler and Connor, Jr., 1977:71)."

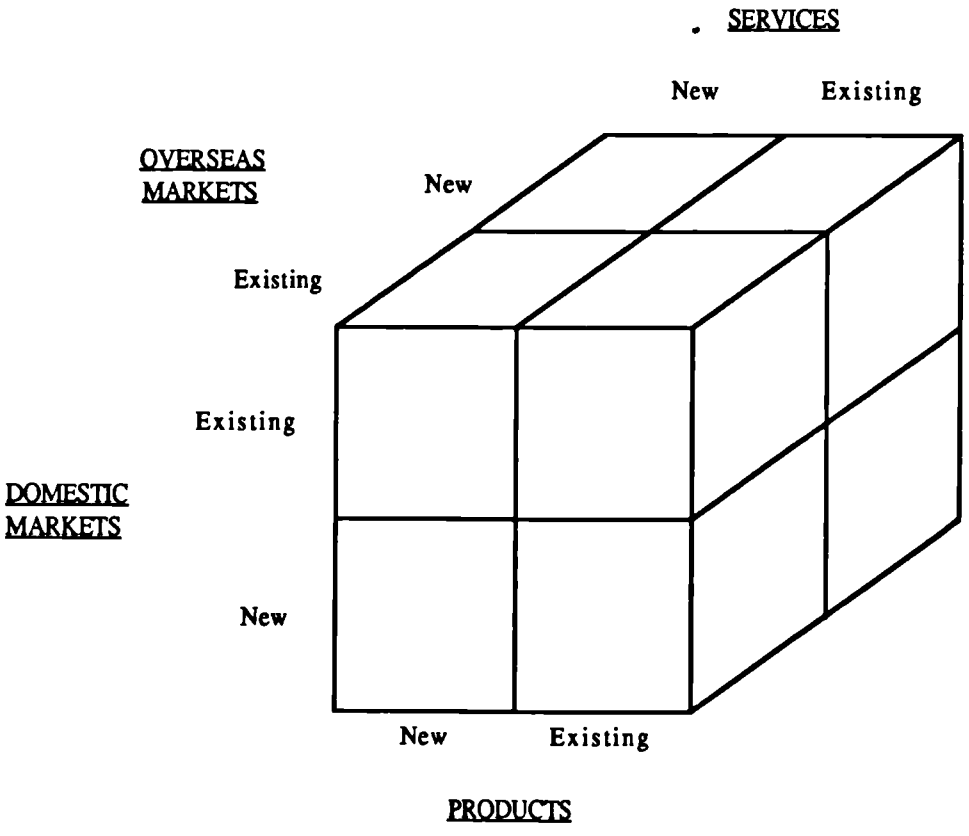



FIGURE 5.1. A "MARKET-PRODUCT-SERVICE" MATRIX FOR THE CONSTRUCTION INDUSTRY

As a result, any empirical studies relating to the marketing of architectural, engineering and surveying services are therefore unlikely to produce radically different findings. Because of professional restrictions, the outcomes of such studies

can, to a certain extent, be predictable. Credibility in that sense can only be adjudicated from professional affiliations, academic credentials and successful track records. On the contrary, the contracting sector of the industry has been relatively liberal in its marketing practices even though some practitioners may not have actually realised these to be within the domains of marketing. Exposed to the competitive forces of the market which determine their survival, growth and expansion, contracting firms have not been hesitant in adopting measures to create opportunities, increase turnover and enhance profits for themselves. Contracting firms generally tend to be more creative and aggressive in this direction even though the construction industry traditionally has a high bankruptcy rate. The evidence can be seen throughout the industry from contractor-initiated property development, speculative house-building, countertrade activities, the setting up of trading arms from within contractors' organisations, provisions of finance, and diversifications into overseas markets, etc., to name a few.

Depending on the type of contractual arrangements used, the approaches to marketing in contracting can be manifold as it can involve both the product and service elements. At one end of the spectrum, a contracting firm may only be required to assemble and erect the materials and components solicited from elsewhere under a traditional lump sum contract based on bills of quantities or specifications. At the other end of the same spectrum, the firm may now be required not only to assemble and erect, but also to undertake design works under a turnkey or package deal contract. As a result, marketing practices can be expected to differ depending on the contract strategies likely to be used by the prospective client or as recommended by his representatives. Marketing can help a contracting firm to create opportunities for itself, to win contracts and to achieve targeted returns. This is not to suggest that marketing activities can be terminated once a contract has been won. On the contrary, marketing is a continuous and dynamic process whose contributions after a contract has been awarded are just as important as before the award.

Because of the stratification within the contracting industry, a main contractor, in the preparation of his proposal or bid submission, may in fact discover that he is not only marketing his own offer to the prospective customer, but also those of other subcontractors' and suppliers' whose services and products have been employed for the purpose of building up the proposal or bid submission. The process begins with the subcontractors and suppliers marketing their products and services to the main contractor, who then in turn exercises the management skills necessary for planning and organising the various disaggregated parts into a single entity required by the client. Figure 5.2, adapted from Gronroos (1983), illustrates this relationship clearly. While the main contractor is concerned with marketing the products of a domestic supplier to the client for incorporation into the contract, he is not normally interested in the manufacturing aspects within the supplier's

production framework. Likewise, this applies to subcontractors who, in the process of offering their services to the main contractor, may also require the use of similar products from perhaps the same supplier or other suppliers. In practice, an indication of marketing success for the supplier may appear to be reflected by the inclusion of their specific products in bills of quantities and specifications. It would therefore be in the supplier's interest to conform his products to recognised national and international standards. Recent years have also witnessed the implementation of quality assurance schemes in the construction industry. While proponents of these schemes point to the achievement of quality standards as the primary objective, one cannot help but question whether the companies taking part think along similar lines. It is true that quality enhances competitiveness, but this would seem to be the means rather than the end. The need for a competitive marketing edge may be the primary reason why firms partake in this exercise, not quality ! This seems to have created a bandwagon effect which causes the scheme to be propagated across the industry when proponents of the quality assurance concept issued a clear preference for products and services which are quality-assured. Participation is therefore a necessity for competitive marketing, if not for quality.

As Figure 5.2 shows, the marketing of building products and services seems to be distinguishable quite readily. There are established marketing principles which cater separately for each category. The marketing of building products, in the main, hinges on similar principles expounded in industrial marketing. This has already been covered in the previous chapter. The marketing of services by a contracting firm would, depending on the types of tendering procedures and contractual arrangements adopted, include, amongst other things, the design and management of both the assembly and erection processes. The basic fundamentals of both the product and service sectors seem to be clear enough. As noted earlier, the only problem which arises appears to lie in the interface between products and services as shown shaded in Figure 5.2. Such a situation will, however, not occur if, for example, the supplier includes fixing within an overall package for his part of the contract. Within the construction industry, this practice may often be infrequent. Instead, the assembly and erection processes, which are basically service elements, now rest with another party outside of the supplier's organisation. This can either be the subcontractor or the main contractor. In the case of industrialised buildings, the position becomes a little clearer. Here, the production of the prefabricated components is carried out by the main contractor who, in most cases, also undertake their assembly and erection on site.

Considering the large number of interfaces which may occur in any sizeable project, especially the larger ones, it is not too difficult to understand why the marketing practices of individual operating units may seem to be diffused within the interactive construction system. This phenomenon would appear to be magnified further when control over one's product or service performance becomes dependent on the inputs

from another operating unit.

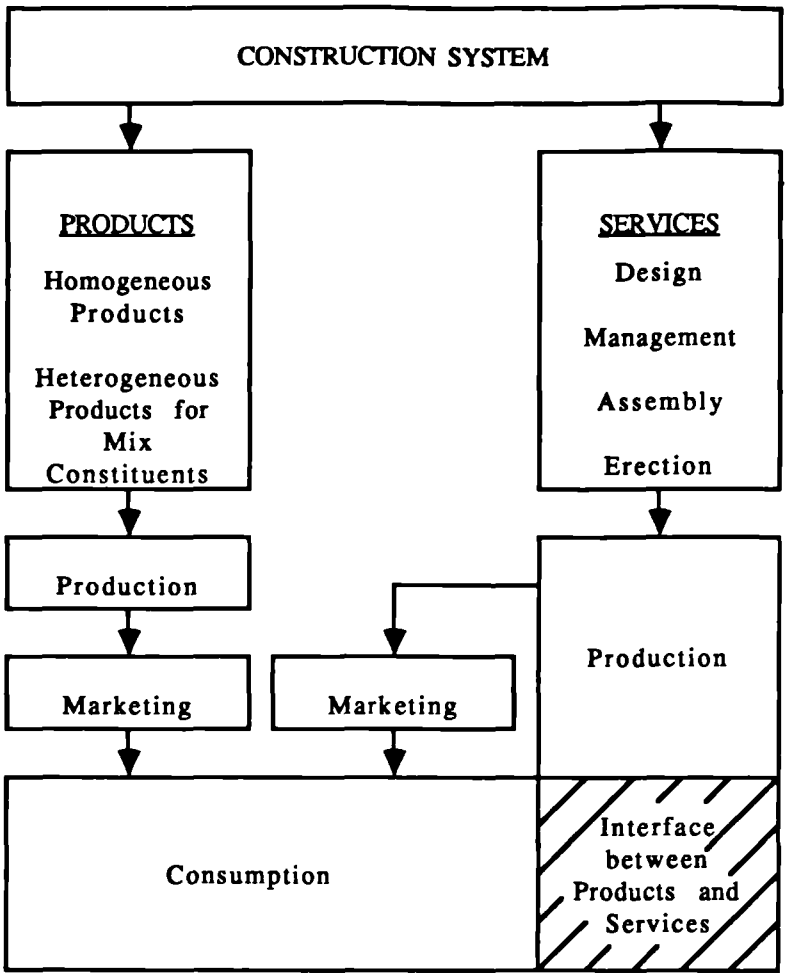



FIGURE 5.2. THE RELATIONSHIP BETWEEN PRODUCT AND SERVICE MARKETING IN THE CONSTRUCTION INDUSTRY

## 5.7. SUMMARY

Four schools of marketing thought were identified from observations and an extensive literature review of the construction industry. The first school of thought claims that the concept of marketing is not applicable for the construction industry. The complexities created by the large number of operating units and contractual arrangements in the construction process seemed to have initiated this claim. The attractiveness in using the lowest price as an objective selection criterion in competitive tenders is another reason for challenging the applicability of marketing in the construction industry. Although this contention may be true to a certain extent, the situation is however changing rapidly today. It has been shown that the ability to provide finance and other innovative project arrangements for clients can be much more important now than the submission of low bids. In the second school of thought, marketing is accepted to be applicable for the construction industry even though its supporters have not understood the marketing concept fully. The different functions involved, such as selling as opposed to marketing, were, in the

process, confused. The ecological view of marketing as a passive, self-adjusting and self-generating mechanism provides the setting for the third school of thought. In the process, the basic marketing concept was applied but was not recognised nor noticed. The conscious adoption of a marketing orientation is a dominant feature of the last school of thought. Although applied, the marketing concept can, nonetheless, be curtailed by professional codes of ethics which limit the boundaries of marketing practices. Applications may also be complicated by the product / service and local / foreign dichotomies as well as the interfaces between different operating units in the construction industry.

FOOTNOTES

1 This interview was conducted on 14 October 1987 in Singapore.

2 Presented on 18 January 1988, this seminar was attended by about a dozen professionals from mainly the architectural and development planning disciplines.

3 This one-day meeting was held on 3 February 1988 at the premises of the Institution of Mechanical Engineers (London). The timeliness of this meeting has enabled the writer to confirm what has been suspected all along - that the marketing concept has not been widely understood and even when it has been put into practice, has not been recognised as such. The passive but self-generating and self-adjusting features of the marketing mechanism have been noticeable.

REFERENCES

1 Ansoff H. I., "Corporate Strategy : An analytic approach to business policy for growth and expansion", McGraw-Hill, 1968.

2 Baker M. J. and Orsaah S., "How do the customers choose a contractor ?", Building, 31 May 1985, pp. 30-31.

3 Bell R., "Marketing and the larger construction firm", Occasional Paper No. 22, The Chartered Institute of Building, 1981.

4 Brech E. F. L. (Ed.), "Construction Management in Principle and Practice", Longman, 1971.

5 Building, "The Globetrotters in Profile : Balfour Beatty", Building, 14 March 1986, pp. 40-41.

6 Cochlin D., "The marketing function", Building, 15 May 1970, pp. 119-121.

7 Cochlin D. and Dix R., "Building Marketing. A source of information", Building, 20 February 1970, p. 107.

8 Drewer S. P., Hillebrandt P. M. and Wykeham J. M., "The Building Industry and opportunity for international trade", University College Environmental Research Group, London, September 1972.

9 Fisher N., "Marketing : Dispelling the Myths", Building, 7 March 1986, p. 29.

10 Gronroos C., "The Nature of Service Marketing", Singapore Marketing Review, Vol. VII, December 1983, pp. 15-20.

11 Hamman N. N., "Contracting firms and the pre-tendering phase of international construction projects", Unpublished M.Sc. thesis, Department of Building, University of Manchester Institute of Science and Technology, 1971.

12 Hardy L. W. and Davies E., "The marketing of services in the UK construction industry", European Journal of Marketing, Vol. 17 No. 4, 1983, pp. 5-17.

13 Hillebrandt P. M., "The management of large UK contracting firms - theory and practice", in "Managing Construction Worldwide. Vol. 2 : Productivity and human factors in construction", Lansley P. R. and Harlow P. A. (Eds.), E & F N Spon, 1987, pp. 919-926.

14 Hillebrandt P. M., "Small firms in the construction industry", Committee of Inquiry on small firms, Research Paper No. 10, HMSO, 1971.

15 Jepson W. B. and Nicholson M. P., "Marketing and Building Management", Medical

and Technical Publishing Co. Ltd., 1972.

16 Kinsey J., "Marketing in Developing countries", Macmillan, 1988.

17 Kotler P. and Connor, Jr. R. A., "Marketing Professional Services", Journal of Marketing, January 1977, pp. 71-76.

18 Moore A. B., "Marketing management in construction : a guide for contractors", Butterworths, 1984.

19 Navarre C. and Schaan J-L., "International engineering project management : key factors in a changing industry", International Journal of Project Management, Vol. 5 No. 4, November 1987, pp. 238-245.

20 Neo R. B., "International Construction Contracting : A critical investigation into certain aspects of financing, capital planning and cash flow effects", Unpublished Ph.D. thesis, Heriot-Watt University, 1975.

21 Risley G., "Modern Industrial Marketing", McGraw-Hill, 1972.

22 Trench P., "Marketing - does it apply to builders ?", Building Technology and Management, April 1969, pp. 83-84.

23 Vassie M., "Marketing in building contracting", Building, 19 September 1969, pp. 151-152.

24 Wheeler C. and Phua W. W., "The marketing practices of Building Contractors in Singapore", in "Managing Construction Worldwide. Vol. 2 : Productivity and human factors in construction", Lansley P. R. and Harlow P. A. (Eds.), E & F N Spon, 1987, pp. 927-936.

25 Wilson A., "How to win orders by studying the service aspects of contracting", Contract Journal, 13 June 1985, pp. 12-14.

26 Wrighton J., "Rehabilitation - Project design and procurement", in Proceedings of ICE and IMechE meeting on "Maintenance and rehabilitation versus new investment in developing countries", 3 February 1988, London.

CHAPTER SIX

# THE SIGNIFICANCE OF MARKETING IN CONSTRUCTION

## 6.1. THE CURRENT POSITION

The previous chapters have so far dealt with the question of marketing and its relevance in construction, and how marketing has been perceived by both the academicians and practitioners. What remains is an examination of the significance marketing has in both domestic and international contracting.

Marketing has occupied a central theme of pragmatism for many decades in the manufacturing, distribution and services industries. Its role within the construction industry was however greeted only with mild enthusiasm initially. While this trend appears to continue today, its extent is now relatively less worrisome because of the growing number of marketing papers and calls directed specifically towards the construction industry. (Note, for examples, the works of Trench (1969), Cochlin and Dix (1970), Jepson and Nicholson (1972), Bell (1981), Russo (1981), Cox (1982), Hardy and Davies (1983), Moore (1984), Wilson (1985), and Fisher (1986)).

It would appear that the growth of a construction industry in volume terms brings about not only a spontaneous growth in the number of indigeneous contracting firms but also an influx of construction companies from other nationalities in search of new markets. In due course of time, three situations gradually develop which bring forth the importance of marketing in an increasingly competitive industry. Firstly, depending on the attractiveness of the market concerned, the growth rate of the construction industry may not be as rapid as the infiltration rate of firms into the industry. This imbalance can cause a disproportionate distribution of market shares even though firms are competing for work in what may now seem to be an expanding market. Secondly, firms within the industry not only multiply in their numbers over time but also grow in size. This occurrence often necessitates firms to tender for sizeable projects commensurate with their growing capacities. Major projects of this nature are however, in time to come, often few and far between. This perhaps accounts for the reason why some firms have diversified both into other activities outside construction and into overseas markets not within their traditional domains in order to optimise the utilisation of their available resources Thirdly, while firms within a construction industry may multiply in number and grow in size, the industry itself may actually contract. The construction industry in any one country cannot simply go on expanding forever. Although an industry which is obviously shrinking may deter newcomers from entering the market, the potential damage to firms already in the market cannot be dealt with so readily.

Faced with keenly contested bids in the domestic scene, existing firms within the industry can adopt one or a combination of the following alternatives :

1. Remain in the industry and hope that a recovery will eventually arrive.
2. Pull out of the market before any further irreversible damages or substantial losses are incurred.

3. Diversify into other construction-related or non construction-related activities.
4. Export surplus construction capacities to other overseas markets on an ad hoc basis, and
5. Market construction services to potential overseas markets on a regular and sustained basis.

It would not be inappropriate to suggest that interests in marketing have been aroused and intensified within the construction industry primarily because of the downfall in the demand for construction services. Correspondingly, various marketing practices have been initiated, both proactively and reactively, even though practitioners may not have seemed to recognise these as such. Marketing appears to be an informal operation rather than one undertaken formally with attendant formulated policies, strategies and allocated budgets. It would be misleading to suggest that a formally planned system of operations curtails flexibility - an essential ingredient much needed in the dynamic and changing business world of today. Marketing planning therefore enables a firm to act according to what have been anticipated rather than to react to uncertain circumstances. Flexibility may still be allowed for by incorporating alternatives within these plans. While this may appear to be the case for support, the industry seems to be slow in adopting a formal approach to marketing practices. With reference to American contracting firms, Russo (1981) notes that :

> "The question is not why has construction not adopted marketing practices, but rather why have they not adopted good and formal marketing systems : they simply have not used the entire system of marketing. All contractors are involved in marketing although many may not agree that they are. Most are marketing on an informal, unsystematic basis; but all are marketing (Russo, 1981:32)".

The lack of an understanding of the marketing concept and how it works for the firms appear to be one reason why the response has been far from satisfactory in the construction industry. The creation of an additional barrier may also be attributed to the apprehensive notion that a formal marketing approach mandates a large financial outlay annually. In addition, there is also an uncertainty whether this amount may be recovered eventually. Inevitably, an unusually large expenditure for a formal marketing system may be difficult to justify, yet there has been only little realisation over the amount "informally" spent on ad hoc marketing activities. The difference in sum totals expended in both the formal and informal cases may actually amount to a negligible figure. A formal organisation of the marketing process may eventually bring forth results commensurate with the costs involved which may only be a little more, if not less, than that incurred by an informal process. Bell (1981) and Moore (1984) have recognised this trend and went on to explain why the construction industry is lagging behind the consumer goods and other services industries in accepting the benefits that can be reaped from the adoption of the

marketing concept. Numerous reasons were identified for this phenomenon, including :

1. Inept confusion - There appears to be some confusion over the term "marketing" and its exact definition despite attempts made by others in eradicating this incongruence.
2. Smooth operating conditions - Contracting firms have not previously encountered insurmountable problems in securing work. When survival is not threatened, marketing tends to be neglected. The competitive atmosphere of the future business environment is, however, likely to change this attitude.
3. Unconvinced - Firms were not convinced that the marketing approach can go a long way in planning for profitability and risks reduction. The reluctance to adopt this approach could be due to the resistance to change, despite for the better. This reflects a parochial characteristic typical of most firms which are not forward-looking.
4. Conservatism - Following on from the previous point, the position at a higher macro level may be compounded by the intrinsic conservatism of the construction industry.
5. Identification with consumer goods - The marketing notion may have been identified with the consumer goods industry to the extent that the construction industry, being a predominately service industry, is unable to create demand or participate in promotional activities such as mass advertising or product branding.
6. Influence from production - Where firms are more concerned with the day-to-day running of their projects to achieve completion dates and hence are preoccupied with only the production aspects of their organisations, then the role of marketing tends to be diminished to a less significant position.
7. Creation of demand - Apart from speculative investment or development projects, contracting firms are frequently not in any position to create demand. The impetus rests with the client who contracts for the work and for which the control over the design of the work lies with his representatives.
8. Difficulties in planning - The industry generally does not provide an adequate level of numeracy which facilitates detailed planning. Without a reliable datum upon which plans can be based, firms therefore appear to be disinterested in adopting marketing planning techniques.
9. Complacency - The belief that good products and services will sell themselves may have slackened the efforts of firms in promoting what they have to offer. This belief was reinforced further by a conviction that the longer a product or service remained in the market, the more attractive it becomes to the client. This seems to be an orientation towards the product or service rather than the consumer or user. A formal and systematic approach to marketing is therefore unattractive because firms are more prone towards an informal approach where a good and

reliable service in itself will ensure satisfactory levels of orders.

10. Diversity - The construction industry is a complex system of closely related but diverse agglomeration of operating units which sought to provide the services required by the client. The complications arising out of this scenario have been suggested to hinder the flow of marketing ideas into the industry.
11. Influence from financial control - The traditional emphasis on financial control at both the company and project levels may have also undermined the marketing function within an organisation. It has been claimed that the procedures established for financial control are, in the main, not related to nor concerned with marketing in the business enterprise.
12. Erratic nature of public capital spending - The government has often been accused of using the construction sector as a stop-go regulator for the economy. As a result of the uncertainties associated with such occurrences, market forecasting and planning appear to be practically impossible.

## 6.2. MARKETING AND TENDERING

As a well established tradition, contractors are mostly selected after an exercise in open or selective tendering. Another option available for the employer by-passes the tender stage by approaching a particular contractor directly for negotiation. The latter two approaches, i.e. selective tendering and negotiation, seem to have immense implications for marketing. This is not to suggest that marketing is of no relevance at all in competitive open tendering. A contractor in seeking out opportunities to submit bids, in such an instance, is in fact conducting marketing research to avail himself of an information system as to where the jobs can be found. Without conscientious marketing research efforts directed towards tender advertisements placed in the press and other trade journals, the extraction of an information system becomes difficult. Opportunities will most likely be overlooked altogether although alternative marketing intelligence of this nature may be gathered through personal contacts.

Outside the scope of open tendering, the demanding role of marketing appears to become more exacting. As the Banwell Committee (1964) Report has indicated, the validity of open tendering remains, but its adoption should not take precedence without first giving due considerations to alternative procurement methods which could be more appropriate. As Moore (1984) argues,

> "It is the availability of these alternatives which widens the scope of marketing activities for contractors (Moore, 1984:14)".

While competition may yield economy for the Employer, open tendering has been objectionable mainly on the ground of cost effectiveness. The disproportionately large number of contracting firms tendering for one project is indicative of the vast expanse of wasteful resources expended by both the Employer's organisation and each individual tenderer when ultimately the award is made to only one single

contractor. This procedure has thus been accused of sub-optimality and of increasing the costs tremendously to industry. Eventually, this leaves much to be desired for the Employer who bears the brunt of this increase as a result of contractors off-loading their overheads incurred in tender preparation into their final bid prices. Likewise, given the opportunity to bid for each and every conceivable project in an open tender scenario, a large percentage of which will inevitably be unsuccessful, the estimating department within a contractor's organisation will become unduly overburdened. Similarly, where price alone is not the only selection criterion, the Employer or his representatives will need to vet through a larger than normal number of tender submissions before selecting one which, at that point in time, appears to offer the best deal. Nonetheless, despite all its inherent disadvantages, the open tendering approach seems to be the only mode appropriate for government funded projects where public accountability does indeed matter.

It would appear that all these criticisms point to a need for rationalisation at the tender stage and, in response, have led to both the selective tendering and negotiation approaches. In the case of selective tendering, because of the prior need for contractors to be prequalified into a list of tenderers before tender documents can even be purchased, it becomes crucial for interested contracting firms to first overcome this hurdle. The difficulty lies not in the shortlist of tenderers but rather in how a particular firm can go about satisfying the criteria for prequalification and hence, inclusion. Brech (1971) notes that the advent of selective tendering raises a pertinent question of how the names of interested contractors are picked before tenders are invited. The selection of a contractor based solely on the lowest price in open tendering has always been questionable because there is no way in which the performance of each and every contractor can be confidently ascertained both before the invitation to tender is issued and before the contract is awarded. The only other alternative available to overcome this shortcoming seems obvious enough and comprises of two stages. In the first stage, the Employer and his representatives decide what should be the dominant criteria needed to objectively prepare a shortlist of potential contractors capable of undertaking the contract satisfactorily. These criteria may vary and remain a function of the Employer's needs and nature of the project. As a result of the Employer's emphasis on certain specific requirements, these may consequently become the main guiding factors from which a shortlist of tenderers can be prepared. Although the underlying fundamental basis of all these criteria serves to illustrate objectivity, some degree of subjectivity cannot be avoided altogether. Selection criteria can in turn be categorised crudely into major, general and minor criteria depending on their relative importance perceived by the Employer. Among others, the following list of criteria may be considered :

1. Reputation of the firm.
2. The type of resources owned by the firm or which can be made available from elsewhere when the need arises.

3. The financial stability and capacity of the firm.
4. The suitability of the firm for the project on hand. This would relate to the type and nature of the work involved and whether the firm has the ability and experience to undertake the project.
5. Having determined the suitability of the firm, it would then be appropriate to ascertain if the firm is available for the stipulated period of time required to undertake and complete the project.
6. The management expertise professed by the firm, and
7. The co-operation likely to be received from personnel at all levels of the firm.

Where the situation warrants, these criteria can be individually weighted and collectively ranked accordingly. Although criticisms may be levelled against the validity of such an approach for transforming subjective evaluation into quantifiable terms, there do not seem to be any other viable alternative where this procedure can be carried out both expeditiously and meaningfully. A shortlist of tenderers may be prepared much more readily if the Employer or his representatives have had previous experiences and dealings with contractors which they now feel are capable of carrying out the work currently under consideration successfully. Otherwise, letters of enquiries may be sent out or a prequalification advertisement placed in the press inviting contractors to apply and submit details for the purpose of prequalifying for the tender submission. Prequalification exercises have been a mandatory feature adopted by the major international lending agencies (such as the Asian Development Bank (ADB) and the World Bank (WB)) prior to International Competitive Bidding (ICB).

Having shortlisted an appropriate number of suitable contractors in the first stage, the Employer or his representatives thereby proceed to the second stage where only tenders are invited from prequalified contractors. On the part of the Employer, resources are therefore deployed much more effectively by confining tender submissions to a smaller number of firms, all of which have the abilities to carry out the work satisfactorily. Because there has been an earlier evaluation of the contractors shortlisted for tender, price would probably be a dominant and objective criterion now in deciding who wins the contract.

Selective tendering is not, however, without its shortcomings. The restrictive nature in the bidding process may lead to collusion by tenderers. To reduce the possibility of such practices, suitable contractors are frequently rotated whenever a shortlist of tenderers needs to be drawn out. The significant implications of marketing in this selective approach cannot be over-emphasised. Both Baker and Orsaah (1985) reason that contractors must not only know the mind of the Employer but that

> "prequalification should be taken seriously by the firm as a major marketing exercise, especially now that most competitive contracts are awarded through selective competitive bidding. In the first place, most customers turn first to their list of prequalified construction firms. This suggests that exclusion from the list may mean lost job opportunities for the firm concerned (Baker and

Orsaah, 1985:31)".

There may also be instances where both the open and selective tendering approaches are replaced by negotiation. This arises either because the Employer has an absolute confidence in a particular contractor to the extent that a tendering exercise becomes unnecessary altogether or the contractor concerned possesses a service or product of such uniqueness as to exclude a consideration of all other contractors. The negotiations referred to here is not connected in any way with the negotiations carried out between the contractor and the Employer or his representatives after a tendering exercise. In this context, the approach does not involve any element of tendering. The Employer or his representatives contact the contractor directly and vice versa. Regardless of whether this preference is a result of an overwhelming confidence in the contractor, or is a result of his unique offerings, the implications for marketing remain immensely important for both cases. In the first instance, it may be safe to assume that the contractor has marketed his products and services well enough to instil the high level of confidence which culminates into the Employer's willingness to negotiate the contract with him directly without further consideration given to other contenders. In the second instance where the contractor possesses a unique product or service offering, the marketing role continues to be of much significance. Without marketing, the extraordinary features of the contractor's offering will not be made known to potential users. If that has been the case, then it does not matter whether the uniqueness amounts to anything at all. To capitalise on such features and reap the benefits of being in an advantageous position competitively requires the contractor to disseminate the critical information to the Employer for decision-making purposes. Marketing tools would be appropriate here as a means to achieve this end. The cultivation of a negotiative framework and the avoidance of tendering can present a higher probability of success for the contractor. As Russo (1981) has pointed out, personal selling continues to be the most important activity for acquiring actual contracts and that

> "Maintaining a consistent relationship throughout is important not only to the project being worked on or solicited but also to creating return business and improving the chances of negotiating rather than bidding for future work (Russo, 1981:34)".

Regardless of where the approach is made, the common denominator for all three procurement modes lies in satisfying the client's needs ultimately. To understand these needs would mean getting closer to the selection process. The chance of being chosen will be better if the client's needs for a project can be flawlessly identified and anticipated beforehand. The marketing function therefore avails a greater chance of success and a lower risk of loss for the forward-looking contractor. In a prequalification exercise, the receipt of an enquiry by a contractor is an indication

of some prior efforts in marketing activities such as promotion and personal selling - activities which Trench (1969) has found to be lacking in the construction industry. The conservatism prevalent within the industry perhaps accounts for this slack. Marketing, it would seem, was believed to be applicable only for the larger construction firms. Size alone constitutes a variable, not an impediment which seeks to hinder the contributions of marketing in construction. A timely counter-argument to this assertion has been provided by Russo (1981) who pointed out

> "The fact that most construction firms are relatively small, leads their owners and managers to believe that they cannot practice marketing like "big companies do". This, in fact, is partially true : they cannot operate exactly as large industrial organisations do, but must formulate a basic marketing posture that best fits their own situation (Russo, 1981:32)".

## 6.3. THE ISSUE OF LOWEST PRICE

Because the lowest price in ICB is a major criterion in determining who wins a contract, critics may therefore argue that marketing is of no relevance in any case so long as the price is low enough. While price is undoubtedly an important factor in international contracting, it is by no means the only consideration. Furthermore, price is only one among the four P's advanced in the marketing mix concept. ICB has been mandated in appropriate circumstances by the World Bank (1977) because it recognises that its needs and interests can only be safeguarded through this process. Westring (1985) notes that while all goods and services procured under World Bank loans are expected to encapsulate the ICB procedure, there are nonetheless provisions made for prequalification and selective tendering for the larger and more complex projects. Although price is obviously the first criterion, Westring (1985) observes that it is rarely the only criterion which needs to be borne in mind. Likewise, Eurofil (1988) contends that the bid which is technically competent and with the lowest evaluated cost will normally be awarded the contract instead of the lowest submitted price. In the case of consulting services, the WB recommends submitted proposals to be evaluated first on the basis of qualitative considerations. Financial terms will be agreed upon only after a selection has been made. As Strombon (1982) argues, the introduction of a price element might be misapplied to the detriment of the desired quality results. The WB's Guidelines on Consultants, as Strombon (1982) observes, make it clear that even when the price component is invoked, it should only be a secondary consideration and not a dominant criterion in the selection process. Instead, the assignment's complexity, its impact and the comparability of the various proposals should all play a decisive role in determining who is more suitable to undertake the task at hand. Baum and Tolbert (1986) maintain that even when a shortlist of firms has been prequalified, the selection procedure should ensure that price considerations are subordinated to quality concerns. Procurement procedures under the Asian Development Bank (1981) carry similar

connotations. In the evaluation process,

> "Bids will be compared on the basis of their evaluated costs and the bid with the lowest evaluated cost, which may not necessarily be the lowest-priced bid, should be selected for award. Apart from price, other relevant factors such as the efficiency and reliability of the equipment or the method of construction to be used, the time of completion of construction or delivery, the availability of after-sales service and spare parts, and operating costs, should be taken into account in determining the lowest evaluated bid (ADB, 1981:29)".

Hewitt (1983), likewise, recognises price as only one among several other criteria considered by a donor agency and that the most competitive bid needs not necessarily be the cheapest. The competence of the tendering firm to complete the contract as specified and within the time limit similarly ranks high on the priority list. Proof of past performance on contracts of similar size, scale and technical complexity; assurances of financial stability; and indications of the tenderer's ability to work effectively in the recipient country are all amenable to considerations by the donor agency. While price remains a crucial marketing factor of considerable importance, Gilligan and Hird (1986) believe that

> "the key to international success is less likely to be by means of direct price competition, but rather it is through far greater attention being paid to areas of non-price competition, such as higher product quality, faster delivery schedules, a more aggressive sales approach, a more detailed understanding of the market, and a more effective after-sales service (Gilligan and Hird, 1986:195)".

Gerwick Jr. and Woolery (1983), likewise, reason that price is unlikely to be a dominant factor today because there have been cases where contracts were awarded to the higher bidder who provided financing rather than the lowest bidder who provided none. Major innovative efforts are therefore needed in international contracting to line up financing for projects that would otherwise never have materialised. Seymour (1987) also argues that price is no longer the only criterion in securing international contracts and that the edge a firm has over other competing firms lies in its ownership, location and internalisation advantages. As a result, Seymour (1987) acknowledges that

> "the situation now involves a number of complex factors, and competition can no longer be characterised by price alone; home and host country political links, sophisticated marketing techniques and incentives, and particularly the ability of the contractor to provide project finance have all become factors that determine success in the industry. While the importance of a low price should not be underestimated, other significant factors may contribute, or even exceed this factor, to guarantee success (Seymour, 1987:2)".

From the evidence culled, Seymour's (1987) hypothesis and argument that factors other than price are significant in the winning of international bids seem to be justifiable within the context of modern day international construction business.

## 6.4. A REVIEW OF STRATEGIC THINKING

In tandem with other commercial ventures, success in international construction business can also be enhanced through strategic means. Before marketing strategies are examined in the next section of this chapter, it would be appropriate here to review some of the insights which constitute strategic thinking.

Schlissel and Giacalone (1982) have described a strategy as a plan or an approach to achieve a desirable goal by developing organisational strengths that are designed to surmount environmental obstacles. Strategic success can therefore be advanced by first analysing the environment before determining the optimal amount of effort needed to achieve set objectives. Rao (1987) notes that the concept of strategy involves :

1. The advancement of one's own interests in a competitive environment.
2. Setting specific objectives such as growth rate or return on investment against which desired progress can be measured, and
3. Timing a sequence of conditional moves for deploying resources to attain the set objectives.

MacMillan (1986) suggests that the best point to activate strategy formulation lies in business objectives where the desired performance, achievement or result which an organisation seeks to attain can be highlighted. These objectives may be "survival", "profitability" and "growth" which perpetuate in different hierarchical orders of importance in different organisations. MacMillan (1986) continues on to suggest that strategy is an attitude of mind rather than a technique bogged down in daily details. Strategy signifies a way of looking at the business as a whole and the identification of a direction for future development. Strategic implementation, therefore, includes a consideration of organisation design and behaviour.

As Andrews (1987) notes, business strategy is an attempt by a firm to create the conditions favourable for achieving its objectives. In so doing, there is a need to impose upon the market the place, time and conditions of trading preferred by the firm. In short, strategy is about the nature of business a firm is in or seeks to be in within the context of market opportunities, company resources, personal aspirations and social obligations. Andrews (1987), after Ansoff (1968), observes that there are six strategies within this framework :

1. A firm may continue to do what it is already doing but do it better.
2. A firm may elect to expand its existing range of services into new markets.
3. A firm may choose to expand its existing markets by introducing new services.
4. A firm may develop new services for new markets.
5. A firm may, by deliberate intent, choose to diversify out of its existing industry into another industry, and
6. A firm may, again by deliberate purpose, elect to go out of business altogether.

In so far as the strategic choice for contractors is concerned, Andrews (1987) suggests this may be made up of three components :

1. What the contractors can do for themselves.
2. What contractors can do to help each other, and
3. What the contractors can urge others to do for them.

In considering the manager's role as a strategist, Hofer (1971) has described a manager as someone who is directly involved with both the formulation and implementation of corporate strategy. A good manager is, therefore, more concerned with opportunities than with problems, with being effective than efficient, and with the strategic rather than the day-to-day affair of running the company. As Fellows, et. al. (1983) have recognised, business strategy is concerned with giving a long-term direction to an enterprise. It is therefore necessary to differentiate between decisions which are strategic as opposed to those which are tactical. While the former are essentially concerned with "what shall we do" issues, the latter are, in contrast, basically "how shall we do it" decisions. Likewise, Fellows, et. al. (1983) believe there have been frequent confusions over the distinction between business strategy and marketing strategy, and went on to suggest that because business strategy encompasses the much wider issues, marketing strategy is therefore both an integral part of and a result of business strategy. A contingency view of business strategy also seems to appeal to Fellows, et. al. (1983) because of the various characteristics such as size, diversity, organisation structure and management style which need to be considered in formulating appropriate strategies.

While the popular view sees the strategist as a planner or as a visionary, Mintzberg (1987) postulates an additional learner role over and above those of the more popular perceptions. These three views have been acknowledged by Foster (1989) who sees the planning approach as the classical design model which every manager has been trained to understand. The visionary approach to strategy formulation is, on the other hand, a semi-conscious process which evolves within the mind of the decision-maker. Mintzberg's (1987) learning approach offers an alternative to the rigidities of planning by experiencing the process of doing something and finding out what does and does not work. Mintzberg (1987) argues that there is no such thing as a purely deliberate strategy or a purely emergent one. Learning is therefore a continuing process because no one organisation knows well enough to work out everything in advance. Likewise, no organisation can be flexible enough to give up all control and to let everything takes its natural course. Hence, Mintzberg (1987) contends that both the planned / deliberate approach and the flexible / emergent approach constitute the end points of a strategic continuum. Similarly, the crafting of strategy cannot be carried out in isolation without first synthesizing the past, the present and future turns of events. In suggesting that both the analytical and intuitive minds play a significant role in strategy formulation, Ohmae (1982) appears to accord well with Mintzberg's (1987) contentions. Macomber (1989), on the other hand, canvasses a view that company strategies within the building industry tend to be more intuitive than deliberate. The technique of SWOT (Strengths, Weaknesses,

Opportunities, Threats) Analysis is therefore a deliberate attempt to rationalise methodologies in strategy analysis. MacMillan (1986) maintains that SWOT Analysis cannot be carried out without reference to the history of the firm as well as its managerial aptitude. Provided this can be undertaken along the procedure proposed by MacMillan (1986) in Figure 6.1, strategic options can eventually be arrived at from a rational and methodological analysis of this nature.

Ohmae (1982), on the other hand, furnishes a triangular paradigm to take into account customer-based strategies, corporate-based strategies and competitor-based strategies for the formation of an overall strategy. Rugman (1985), in particular, stresses the firm-specific advantage for designing global competitive strategy as this variable is understandably the easiest to control by most multinational corporations. Accordingly, Ohmae (1982) recognises four avenues through which a company's position relative to its competitors may be strengthened :

1. Management may readjust the allocation of all available resources in such a way as to increase its market share and profitability.
2. A company may gain a relative advantage by exploiting any differences in competitive conditions between itself and its rivals.
3. The company may aim to upset the crucial factors for success on which its competitor has built an advantage, and
4. Within the same industry or business, a company may achieve success in the competitive struggle by the timely deployment of innovations.

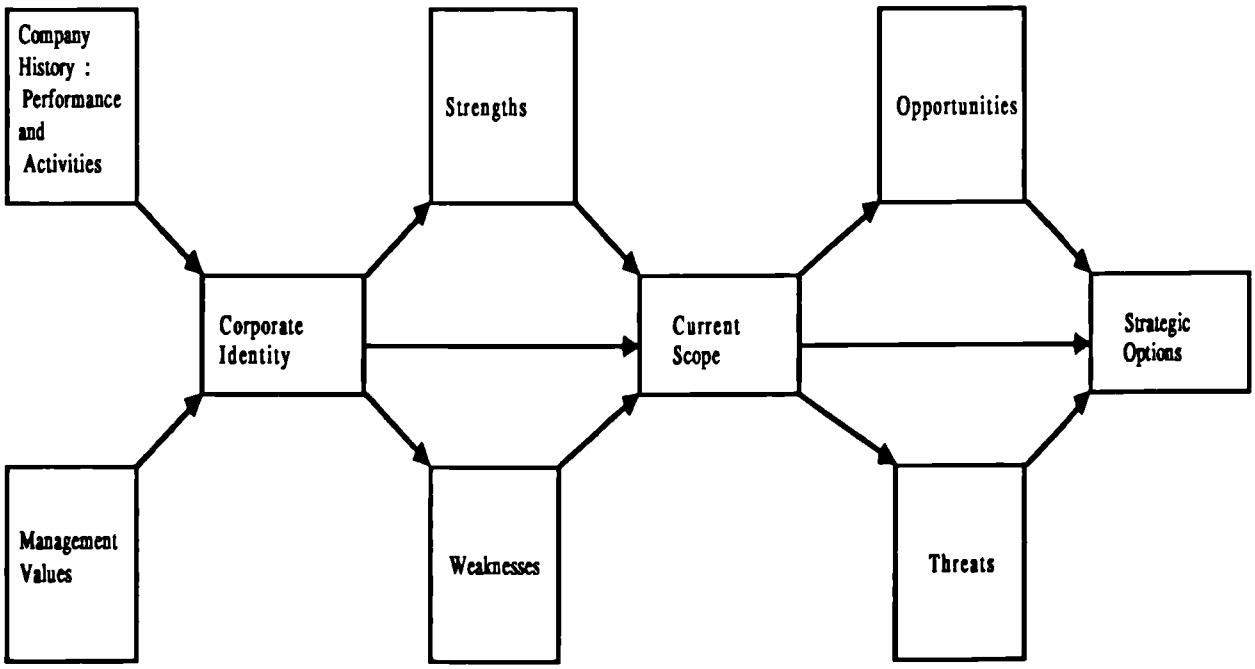



FIGURE 6.1 : A SIMPLIFIED VIEW OF STRATEGIC ANALYSIS

(Source : MacMillan K., "Strategy : an introduction", Journal of General Management, Vol. 11 No. 3, Spring 1986, p. 82).

The alternative courses of action available have also been considered by Fellows, et.

al. (1983) in what they have termed as existing strategies, expansion strategies, diversification strategies and shrinkage strategies. While these options may be made available to the multinational corporations, Rugman (1985) believes that the freedom of choice is, nonetheless, constrained by social responsibility and by the actions of different stakeholders such as home and host countries' governments, producers, consumers, rival firms and workers. In addition, the vexatious question of implementation persistently remains. Bonoma (1984), for example, concedes that more often than not, it is the implementation rather than the formulation of strategies which is at fault and which paves the way for failure. Implementation difficulties, Bonoma (1984) maintains, can be attributed to a variety of organisational and interpersonal problems. Mintzberg (1987), however, does not seem to favour the separation of the minds from the hands in large organisations because this would mean that the vital feedback link between the strategist and the doer will thereby be severed. The contention that strategy is something that should occur way up there, far removed from the detailed realities of running an organisation on a daily basis is, as Mintzberg (1987) counters, a fallacy of conventional strategic management.

On the other hand, Mintzberg (1987) recognises the limitations all strategists face. However desirable it may seem, mundane strategists appreciate that they cannot be astute nor smart enough to think through every details in advance. As such, there is no one single best way to craft strategy although every attempt should be made to transform errors into opportunities and limitations into creative stimulations. Ohmae (1982), likewise, accepts the fact that "perfect" strategies are not called for in the real world of business. What essentially matters is not performance in absolute terms but rather performance relative to competitors. Roberts and Berry (1985) similarly concur that no one strategy is ideal for all business development situations and that the approach to be adopted rightfully depends on the degree of familiarity and unfamiliarity with the markets concerned. Within the context of trading barriers, Yip (1982) maintains that the strongest entry strategy may not necessarily be the best choice since it is also normally the most costly, difficult and time-consuming to sustain.

## 6.5. MARKETING STRATEGIES

It has been necessary to deal with a review of strategic thinking in the preceding section before an examination of marketing strategies can be undertaken. This essentially stems from a need to contrast between strategic thinkings at the corporate level and marketing strategies. As MacMillan (1986) has observed, corporate strategy is basically a general management activity which encompasses, among other sub-disciplines, marketing. Marketing strategy therefore constitutes a part of the systemic process of strategic thinking and decision-making. Wind and Robertson (1983) similarly expound the high degree of overlap marketing strategy has with business strategy. Fellows, et. al. (1983) have defined strategy in terms of geographical expansion and market diversification, with the latter again subdivided

into single market, dominant market, related market and unrelated market. In the same direction, Cravens (1986) has noted six strategic options which encompass :

1. Multiple targeting.
2. Selective targeting.
3. Differential advantage.
4. Acquisition, merger, and joint venture.
5. Diversification, and
6. Harvest or divest.

Within the context of the building industry, Calvert (1986) acknowledges the components of marketing strategy and selling tactics which go to make up the two distinct but complementary functions of marketing. In the first instance, marketing strategy is concerned with finding out what people need or want, organising the firm's resources to fulfil these needs or wants, and at the same time, determining policies which are suitable for both the buyer to gain and the seller to profit from the transaction. Selling tactics, on the other hand, are more concerned with the executive task of securing orders and contracts through the employment of appropriate selling techniques. Calvert (1986) continues on to explain that the marketing function is primarily concerned with the formulation of overall sales policy to cater for the product, customer, distribution, price and promotion.

That construction is a confusing process governed by complicated contracts and tiered by complex relationships has been espoused by Macomber (1989). Under such a situation, Macomber (1989) suggests that the client is, in reality, purchasing a service rather than a product. In advocating that the marketing of professional services is unlike the marketing of tangible products, Bloom (1984) recognises the seven marketing challenges which confront the marketer of professional services, including :

1. The legal and ethical constraints.
2. Uncertainty of the buyer.
3. Need to be perceived as possessing the requisite experience.
4. The issue of limited differentiability.
5. The unquantifiable benefits of advertising.
6. The conversion of "doers" into "sellers" through the process of personal selling, and
7. The allocation of time for marketing.

Bloom (1984) continues on to suggest that while the first five challenges are concerned mainly with the selection of marketing strategies and tactics, personal selling and the time allocated for marketing essentially focus on how a company organises and staff the marketing function. The issue of uncertainty seems to be a major hurdle for the marketer of professional services. As Wittreich (1966) has noted, there are three categories of uncertainties associated with the buying and selling of professional services. There is firstly the basic uncertainty over the

seller's reliability. Secondly, because of the vast sums of money frequently expended, the buyer is uncertain as to whether value for money can be achieved. Lastly, even when the requisite services have been purchased, the buyer may still be unsure over the resolution of the real rather than the apparent problems. The three basic concepts in surmounting these obstacles, Wittreich (1966) concedes, lie in :

1. Minimising the uncertainty by increasing the degree of certainty for the client in an area where uncertainty is felt.
2. Understanding the real issues by addressing the key problem directly, and
3. Capitalising only on individuals of true professional competence to sell professional services.

Selling on extrinsic considerations, Wittreich (1966) suggests, can be attained through one or a combination of the following techniques :

1. Persuasion by method.
2. Persuasion by personnel, and
3. Persuasion by success story.

It would appear that the ultimate goal of any marketing strategy lies in achieving an effective and purposeful performance. In securing effective marketing performance, Cowham (1985) believes more time needs to be spent in planning and research at the earlier stages, in establishing a better working relationship between all those involved, and in orchestrating a more concerted effort to create awareness through the use of properly coordinated marketing procedures and techniques. Before embarking on a programme of developing appropriate marketing strategies, Cravens (1986) suggests that it would firstly be essential to understand the strategic situation confronting an organisation. A SWOT Analysis of the nature examined in the preceding section of this chapter would be a useful starting point to generate guidelines for strategy design. Two elements - environmental and internal assessments - need to be taken into account for strategic planning at the global level. Nonetheless, as Rugman (1985) has anticipated, the requisite information must reach the strategic planner promptly and for this, an appropriate organisational structure is required. Cravens (1986) similarly notes that the strategic marketing situation is influenced by three other major determinants apart from the organisational aspects. These are namely the Product-market situation, the Competitive situation and the Environmental influences. Taking these conditions into account, Cravens (1986) proceeds to postulate an iterative cycle, as depicted in Figure 6.2, for formulating marketing strategy.

Likewise, in their attempt to provide a framework for developing marketing strategy, Jain and Punj (1987) suggest that development in this direction is concerned mainly with how the corporation can differentiate itself effectively from its competition to provide better value to its customers. Figure 6.3 shows the Jain and Punj (1987) paradigm which highlights the inputs to the development of marketing strategy from customer, competition and corporation.

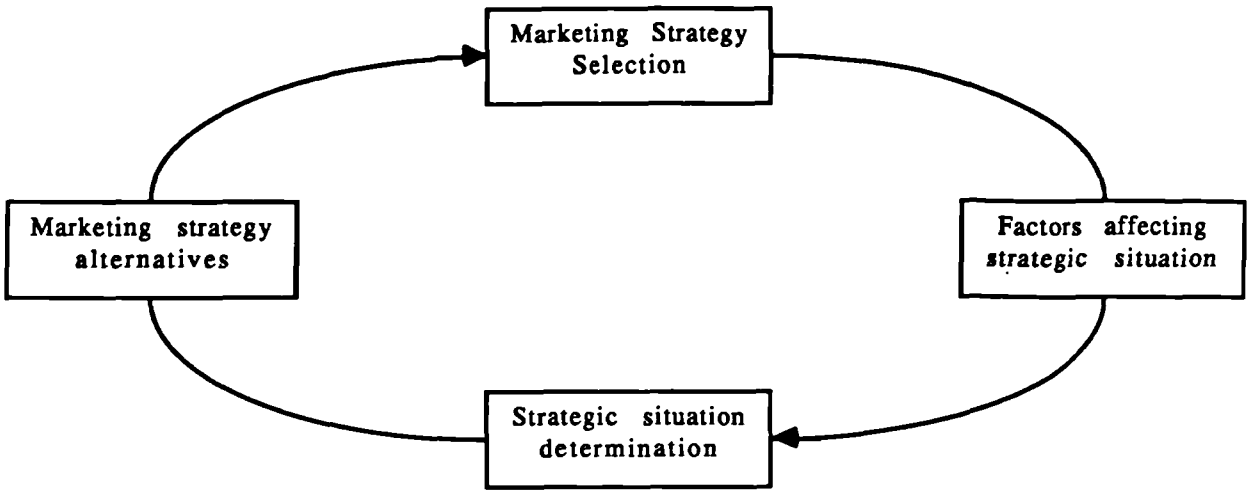



FIGURE 6.2 : THE MARKETING STRATEGY PROCESS

(Source : David W. Cravens, "Strategic Forces Affecting Marketing Strategy", Business Horizons, September - October 1986, p. 78).

Jain and Punj (1987) maintain that their proposal is a strategic marketing approach and not a marketing mix approach. The complementary effect of these two distinctive approaches, however, need to be recognised. Within the context of management for international construction business, Lucas (1986) suggests that the marketing plan is only developed after the decision to export has been made, the skills identified, the strengths inventoried, the fact-finding trip completed, and where appropriate, the business associates selected. Because of the large number of variables which differ from company to company, Lucas (1986) concedes that a prototype marketing plan of universal application may not be desirable. Each tailor-made international market planning effort should, however, produce the followings :

1. A clearly defined plan for the international market to guide all those involved within the company.
2. A list of prospective countries and their respective potentials.
3. An operations plan with staffing and timing details.
4. The goals to be achieved for international marketing, and
5. The annual budget for all home office and foreign expenditure.

## 6.6. STRATEGIC MARKETING VERSUS MARKETING MANAGEMENT

Before proceeding further, it would be appropriate to distinguish between what some commentators have termed the strategic marketing approach and the marketing management approach. While it would appear at first sight that there is no significant difference, there are others who maintain that both disciplines have approached decision-making from a very different perspective. Jain and Punj (1987), for example, suggest that in marketing management, market segments are defined by grouping customers according to their responses to the marketing mix variables, whereas in strategic marketing, market niches are established to identify the groups which would provide the company with a sustainable competitive advantage over its rival companies. As such, the former takes market projections, forecasts and

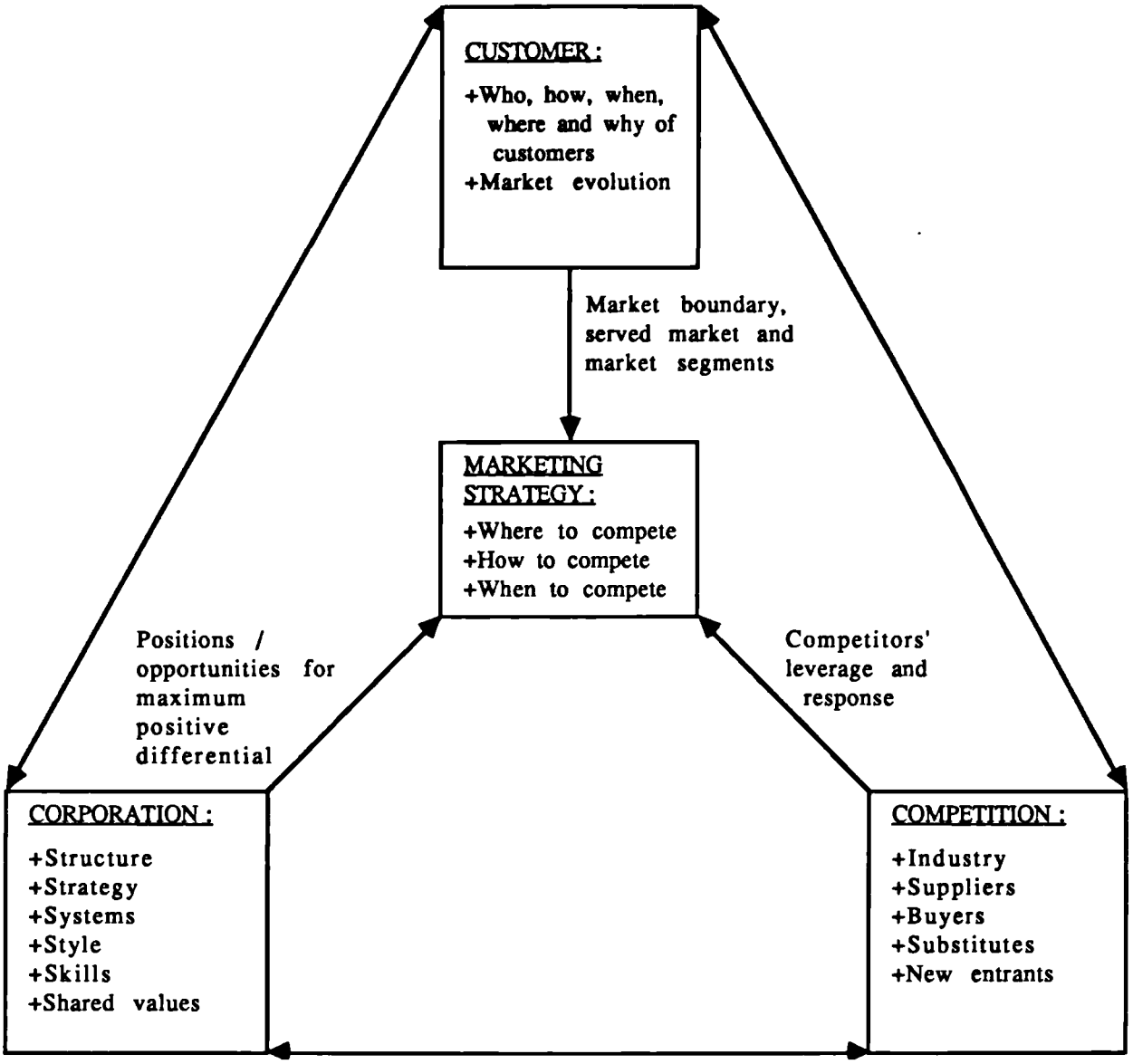



FIGURE 6.3 : THE MARKETING STRATEGY FACTORS

(Source : Subhash C. Jain and Girish Punj, "Developing Marketing Strategy : A Framework", Marketing Intelligence & Planning, Vol. 5 No. 1, 1987, p. 36).

competitive positions as given, and seeks to optimise its position within these constraints. Strategic marketing, on the other hand, seeks to circumvent these constraints whenever possible. While marketing management deals with running a delineated business, strategic marketing concerns itself with the question of what businesses a company should be in. Nevertheless, as Wind and Robertson (1983) have postulated, there is inherently nothing wrong with the marketing management perspective except that its focus on the marketing programme, and in particular, the marketing mix design, has been somewhat limited. There should be more emphasis and inputs from considerations of the customer, competition and corporate positions. It would, however, appear that both perspectives cannot be considered in total isolation. A certain degree of involvement with each approach can be expected in reality when an attempt is made to venture into overseas markets. It would seem that

Wells Jr.'s (1968) version of the PLC concept for international trade can serve to demonstrate this involvement clearly. As a product moves through the introduction, growth, maturity and decline phases of its life cycle, the marketer would need to consider its suitability (i.e. whether the marketing mix is relevant) and perceived competitiveness (i.e. whether a market niche can be carved out) within each market.

## 6.7. MARKET SEGMENTATION

Following the discussion of strategic marketing and marketing management, it would also be appropriate to examine the concept of market segmentation in some details here. Within the international context, before a firm decides to expand overseas into a particular country, it needs to qualify its actions on the basis of the information available. These include factors bearing on the geographical location of the market, the support services available, the economic and legal conditions as well as the political climate. Kale (1987) suggests that once the firm has identified a list of potential countries, classification can then proceed in one of the two following ways :

1. Determine the market segments within each country and then aggregate them further across all the countries on the basis of their similarities, or
2. Directly aggregate each individual market within all the countries into segments.

The first approach which disaggregates various national markets into segments, followed by aggregation of similar segments across all the countries thus reduces the total number of marketing mixes required. This essentially underpins the conceptual framework of market segmentation. In the process, a heterogeneous market is divided into segments which are relatively homogeneous and distinguishable for the purpose of designing a marketing mix to match the users' requirements. Kale (1987) notes that past literature in international market segmentation have frequently segmented the global market on the basis of countries and not consumers. This in itself, as Kale (1987) observes, is a serious flaw as

> "the within country heterogeneity between consumers is totally ignored, and misleading national stereotyping is encouraged. Another limitation is that the firm typically ignores similarities in needs between groups of consumers across national boundaries, and thereby loses out on possible economies of scale (Kale, 1987:61)".

In their research study into the market segmentation practices of exporting companies, Schuster and Bodkin (1987) reported that almost three-quarters of the respondent companies surveyed do differentiate their marketing activities between domestic and international customers. The frequency, in descending order, of the marketing mix elements used for differentiation were : price, sales force, distribution, advertising, product and service, service, product specifications, trade shows, sales promotion, public relations and products. Nonetheless, of those companies which differentiated their marketing activities between domestic and international customers, only 22% of them differentiated their marketing activities among international customers. Apart from differentiation, other marketing

strategies for the international market place include niching and following the leader.

6.8. MARKET SHARE

The market share approach may also enable a company to assess its competitiveness in the market place. Oxenfeldt (1959), for instance, suggests that management can employ market share measurements to appraise performance, express market targets and forecast sales. Although there may be some useful applications to be derived from market share measurements, there are yet other limitations to be content with. Oxenfeldt (1959) admits that while market share movements can help to signal deviations, they are not capable of indicating the cause of the drifting problem. Likewise, the relationship between market share and profitability may not always be favourable. In certain cases, it may instead yield negative results. As Oxenfeldt (1959) has observed, market share changes are at best a signal that difficulties have arisen or have been overcome. Their interpretation is, however, far from mechanical. This is because market shares may contract for reasons which may be entirely unrelated to managerial failure, and expand without any input of managerial excellence. Furthermore, the difficulties in measuring them may obscure and prolong recognition long after the critical changes have occurred.

While many prescriptions have been written on how to attain market share increases, Bloom and Kotler (1975) concede that little normative work has been done on what a company should do once it has attained a large market share. This warrants attention because a company's risk changes at different levels of market share. For low market share companies, the initial risk is high, reduces as market share increases, and then increases at very high share levels. Companies with high market shares are therefore particularly at risk. However, under these situations, strategies which reduce the risk, rather than strategies which reduce the share, are more desirable. An optimal market share will attempt to strike a balance between profitability and risk. The risks surrounding high market share, as Bloom and Kotler (1975) contend, may be lessened by adopting a number of measures, including public relations, competitive pacification, dependence, legislation, diversification, and social responsiveness. The need to remain diplomatic when one's market share is increasing arises because companies which have large market shares in another country are likely to be subjected to immense pressure from the locals. Faced with such a situation, a company may therefore need to optimise rather than maximise market shares at times. Depending on circumstances, share building, share maintenance, share reduction and risk reduction may have to be adopted appropriately. As Feldman and Page (1985) have pointed out, on the basis of general market-share based strategies, a company may either build, hold, harvest or withdraw from the market. Harvesting denotes a conscious strategic response to environmental conditions based on the controlled, orderly withdrawal from a market with the intention of increasing cash flow and profits.

In an examination of the Japanese construction export market, Hayward (1984) notes that Japanese contracting companies have long regarded long-term market share in a country to be more important than short-term profits. Parkinson, et. al. (1984), likewise, observe that Japanese firms are more growth oriented rather than profit oriented, and indeed may go at length to incur losses for some period of time in order to capture new markets.

## 6.9. ENTRY BARRIERS

Entry barriers are undoubtedly an important issue of much concern to the international marketer. While barriers may act as a hindrance to international trade, the adoption of appropriate marketing approaches may help to circumvent some of these obstacles. Yip (1982) suggests that the same factors which give rise to market barriers can be exploited to an entrant's advantage. These factors or barriers to entry include the followings :

1. Economies of scale.
2. Product differentiation.
3. Absolute cost advantage.
4. Access to distribution channels.
5. Superior resources and skills.
6. The threat of retaliation, and
7. Any of the above combinations.

To overcome these obstacles, the potential entrant should first examine the extent of each type of barrier. Having done this, the entrant can then determine whether these barriers can be reduced or avoided. In the second stage, the entrant can adopt one of two strategic approaches. This, however, depends on :

1. Whether the entrant can eliminate the barriers by using the same strategies as the opposing competitors, or
2. Whether these barriers can be avoided altogether by using a strategy completely different from the opposing competitor.

In the second instance, Yip (1982) proposes three sources of different strategies to overcome some of these entry barriers, including :

1. The adoption of radical opportunities to exploit technological or environmental changes.
2. The adoption of opportunities to avoid direct competition, and
3. The negation of barriers by changing the accepted business structure.

## 6.10. CONTRIBUTIONS FROM MILITARY STRATEGIES

It would appear that the conduct of military warfare has several characteristics which are quite similar to undertaking business ventures. Military commanders and managers share the same mundane task of having to allocate their limited resources to gain an advantage over their enemy forces and business competitors. The only major difference, it would seem, lies in the military having to operate in a harsh environment. While costs may be a serious constraint to management in the

commercial world, some countries have set out to win wars at all costs. Economic considerations are, therefore, likely to be different for the military commanders and business managers who both operate under vastly different conditions. While this may appear to be so, it would seem that some of the strategies for construction and project management were derived from militaristic experiences. Nonetheless, while these may have a strong military element, it must be acknowledged that military strategies were born out of harsh wartime conditions where both economics and marketing often play a minor role, if any at all.

Despite some of these differences, marketing practitioners have been known to capitalise on the rationale propounded by military strategists in capturing new markets. Lynn (1987), for instance, concurs with the notion that military strategy can be a popular role model for marketing strategy. Others like Sedgwick (1977), Kotler and Singh (1981), Hendon (1986), Ries (1988), etc. have actually enunciated and adapted the lessons learnt from the battlefields for crafting marketing strategies. Likewise, in relating the applicability of military strategies to the construction industry, Andrews (1987) has noted the following approaches which form the basis of warfare :

1. The envelopment of one flank.
2. The envelopment of both flanks.
3. Penetration of the centre.
4. Attack from a defensive position.
5. Withdrawal before striking.
6. Thrust at the enemy's rear.
7. The full-frontal attack, and
8. The relatively new strategy of guerrilla warfare.

All these approaches appear to have an element of relevance for marketing strategies in the construction industry and therefore constitutes an area which deserves further scrutiny and closer examination.

## 6.11. PROBLEMS IN CONSTRUCTION EXPORT MARKETING

The export market for construction services is both attractive and difficult to penetrate. The numerous obstacles which contracting companies may face in this area of business include the problems of communications, coordination and control between home and host countries' requirements. Most government intervention may often feature prominently here. Foreign clients may require proof of relevant track records and may place undue emphasis on a contracting company's reputation. Additional problems may also arise when foreign clients demand exorbitently low prices and unreasonably short completion times as the basis for selection. Some relief may, however, be in sight if the exporter's government has been active in providing export finance and credit insurances.

Despite the inherent risks and difficulties contracting companies face in overseas markets, for a host of other considerations, firms have continued to venture into the

international arena. Chan (1985) offers several reasons as to why contracting firms have been keen in venturing abroad. These include :

1. Poor or restructured and altered home market.
2. A small home market when the business is volume driven.
3. A need to follow clients who have gone abroad.
4. Prestige.
5. Government encouragement for export drive.
6. A need to spread the risk portfolio.
7. Apparently better margins overseas.
8. The cultivation of synergy with foreign partners.
9. An expansion of the business horizon.
10. Retaliatory move, and
11. As a learning experience.

Having made the decision to venture into foreign markets, the contracting firm is then faced with the daunting task of having to decide which countries can yield the maximum returns relative to the export effort. Some countries may, therefore, be more attractive than others. Chan (1985) similarly suggests there are also reasons why contracting firms favour some countries over others. These include :

1. Geographical proximity.
2. Cultural affinities.
3. Market potential.
4. Market similarities in so far as the type of construction demand is concerned.
5. Availability of resources.
6. The intensity of trading restrictions imposed compared to other countries, and
7. Host government incentives and encouragement.

In practical terms, this perhaps accounts for the reason why Turkish contractors have fared relatively well in their neighbouring countries where Islam is their dominant religion. Likewise, contracting companies from Singapore and Hong Kong have found it relatively easy to garner contacts in China because of their language and cultural affinities. This compares reasonably well with their European competitors who, in the first instance, are already hampered by the language barrier.

As noted earlier, export is basically marketing but because of the large number of variables involved, is much more complex and uncertain. Because of the vast variations in operating conditions, a single, best strategy for export does not exist at all. However, Newman (1975) notes that an export market is no different from a home market apart from the more rigorous and exacting demands required in exporting. This can be complicated further with the passage of time when the number of companies and countries competing for a share of the world market continues to grow. Everyone has to be involved for exporting to be successful. As Newman (1975) maintains, intense competition means that the client nearly always has a choice.

Much work remains to be done before an export exercise can commence. Mureau, et. al. (1984) have proposed a three-steps procedure for export commencement which involves a desk research, considerations of alternative market entry methods, and follow-up visits to the countries earmarked for market penetration. In the case of developing countries, Wells (1986) suggests that the export promotion of consultancy services should not be contemplated until :

1. The country concerned has developed a sufficiently large domestic base for such services.
2. An export mentality has been created among the country's major consulting firms.
3. Specific export targets in terms of geographical markets and service sectors have been set, rather than aiming at sales on a random basis.
4. Governmental support in promoting exports has been developed, and
5. An institutional framework or a high-level government body has been established to coordinate all aspects of export promotion.

Newman (1975), likewise, calls upon firms not to venture into overseas markets unless the firm concerned :

1. Already has a good domestic base and is now ready to move overseas. If this has not been the case, then domestic problems will tend to be accentuated once the firm stretches its resources further.
2. Is in a position to invest executive time and resources for market research and export promotion.
3. Has sufficient cash to tide over this period of expansion, and
4. Is capable and prepared to provide satisfactory customer services.

In addition, Newman (1975) suggests that the bigger and more successful exporting countries all have stable governments, firmly based currencies, considerable governmental support for exporters, and a hardworking and disciplined workforce. While there is no foolproof method which can guarantee success in the international market, there are some basic principles which, if followed, can enhance marketing success tremendously. With reference to the firm, Gerwick Jr. and Woolery (1983) have listed these as follows :

1. Ensure that the firm's capabilities establish the firm as a specialist or authority in the type of job under consideration. Similar projects which have been completed successfully can be referred to for track record purposes.
2. Services should be offered to long-term clients who know what the firm can do and have approved the firm's method of approach.
3. The firm should offer pre-contract assistance in every possible way to clients new to the area. Every opportunities should similarly be utilised to impress new clients with the firm's competence.
4. The firm should ensure that its basis for prequalification is made known to everyone concerned with the contract. In so doing, the firm's ability in this

direction can be established correctly.

5. All opportunities in pre-feasibility studies and actual feasibility reports should be grasped. In this manner, more exposure can be obtained, leading to greater opportunities and a higher chance of success.
6. Stress how the firm's assets and experiences in relation to other contenders' can provide the necessary vantage points for both the client and project.
7. The firm should ensure that its capability and quality performance are made known to others.
8. The firm should convey to potential clients its ability and readiness to commence work at the designated time, and that the necessary manpower and equipment can all be activated at short notices.

However, getting acquainted with one's market in the international construction arena is one task which needs additional prodding. As Leslie (1982) has noted, the contractor's role in the Middle East market can only be ascertained after the requisite strengths, weaknesses, opportunities and threats have been thought through carefully. A professional approach is needed here. Wittreich (1966) believes that the firm concerned not only needs to demonstrate knowledge and skill in its particular area of professed competence, but similarly needs to recognise its limits in the same field.

6.11.1. ENTRY MODES

Having overcome most of the problems in identifying and selecting potential countries, the firm concerned is now confronted with the various options which will enable it to enter into their markets. Nonetheless, this issue appears to create more concern for the manufacturing industry rather than contracting. The decision on appropriate entry modes depends on the analysis of a wide variety of factors and, more often than not, are often based on the decision-maker's judgmental reactions to a few market potential factors such as macroeconomic and demand indicators. Political and cultural variables are, likewise, significant in determining the appropriate entry mode to be adopted. Goodnow (1985) notes that various attempts have already been made to incorporate all the above forces into an eclectic framework. The most notable framework within the context of international construction appears to be the OLI Model proposed by Seymour (1987).

Having gained entry, Rugman (1985) suggests that the multinational enterprise needs to constantly reassess its choice among exporting, foreign direct investment and licensing, and that it may be necessary to modify modalities in line with changes in the operating environment. As Mureau, et. al. (1984) have observed, a certain degree of flexibility is, of necessity, involved here. Because an entry strategy can be bound by time, an exporting company may therefore choose to adopt another entry mode after the existing strategy ceases to be favourable. While entry strategies may be direct (eg. through direct sales, setting up sales offices, etc.) or indirect (eg. through agents and importers), Mureau, et. al. (1984) contend that the use of a mixed

form may also be possible in practice. Similarly, as a result of constraints, some entry strategies cannot be capitalised by exporting companies. These influencing constraints include the size of the company, its financial strength and experience with various entry strategies, availability of managerial expertise in exporting, and last but not least, the company's image.

6.11.2. MARKETING RISKS

The inclusion of overseas markets into a company's portfolio inevitably brings along with it a certain element of risk and uncertainty. As Greene (1969) maintains, the risk element is pervasive in all marketing decisions. Uncertainties, likewise, are unavoidable in every marketing programme so much so that the unintended and unforeseen may unexpectedly reduce profitability or increase financial losses. According to Greene (1969), management should therefore place more emphasis on rationalising marketing risks. This can be done by bringing out the spectrum of risks into the open for a formal evaluation which will enable management to select a viable option commensurate with the risks involved. Rugman (1985), however, appears to be more optimistic in suggesting that the uncertainty element in an international environment only manifests itself in the form of information costs to the multinational enterprise. While information can serve to analyse the unknown factors in the operating environment, the multinational enterprise, on the other hand, is desirous of minimising such costs.

As Mureau, et. al. (1984) have acknowledged, the multitude of risks involved in exporting are more pertinent in so far as commercial risks, currency risks and investment risks are concerned. Apart from the above, it would seem that project financing for international construction also harbours completion risks, operational risks, and political as well as regulatory risks. While this may appear to be so, Cravens (1986) recognises that market diversification offers the benefit of spreading risks over two or more business portfolios. This may be achieved by the company moving into different but yet related product market areas, or by transforming the company into a conglomerate dealing with a few or several unrelated product offerings. Although entry into a new business may be achieved through a variety of mechanisms, each of these mechanisms, however, demands different requirements from the corporation. As Roberts and Berry (1985) have indicated, the selective use of alternative strategies available for entering new businesses can provide a means through which marketing risks may be rationalised. The alternative strategies available include internal development, acquisition, licensing, joint ventures, and minority venture capital investments.

6.11.3. HOST COUNTRY'S REACTIONS

Having secured entry into a foreign market, the exporting company needs to be sensitive to the host government's responses as well as the indigeneous entrepreneurs' sentiments towards its presence and participation in the local industry. In both cases, host government's and indigeneous entrepreneurs' reactions

may either be favourable or unfavourable depending on a variety of nationalistic and economic factors. In the case of construction, apart from taking measures which will not provoke local sentiments (eg. having too large a market share to the detriment of the indigeneous entrepreneurs), the exporting company has to be seen to be contributing towards the development of the local industry and economy.

Provocative local sentiments do not seem to be aroused readily in a free economy where the market is large enough to provide jobs for everyone. It is only when competition becomes more intense in a shrinking market that the locals begin to pay more attention to the performances of their foreign competitors relative to theirs. It looks as if two developments are possible in a situation where the host government has originally adopted a liberal open-door policy in a dwindling domestic market :

1. Both the host government and indigeneous entrepreneurs may pursue a protectionist policy to the exclusion of foreign competitors in the local industry, or
2. While the indigeneous entrepreneurs, whose survival is at stake, may urge their governments to adopt a more protectionist stance, the authorities may be reluctant to retract their open-door policy on account of the development and efficiency which foreign competitors may bring with them into the local industry.

The experiences of some developing countries have tended to lend support to the above observations. Shui On (1987), for instance, reports the influx of foreign contractors into Hong Kong and how the intense competition created as a result has provoked retaliatory measures from the local contractors. While the Hong Kong Government has agreed to revamp the tendering system with a view to eliminating unfair foreign competition, it has nevertheless distanced itself from the pursuit of a protectionist stance. Similar developments have also been observed in the Singapore construction industry. Shui On (1987) continues on to report that, as a result, Hong Kong's contractors were left with four alternatives :

1. Consider the formation of joint ventures with foreign contractors.
2. Allow their interests to be taken over by other local or foreign concerns.
3. Diversify into new markets, and / or
4. Lobby collectively for protectionist measures from the government.

On the other hand, before a company can launch its operations overseas, it has first to ensure that its own domestic base is not consequently put at risks. While this appears to be of greater significance to an infant industry of a developing country, Rabino and Zif (1987) suggest that the same threat remains operationable for the developed countries. To counter the onslaught of imports, the domestic base has first to be protected before any further export activities can be undertaken.

### 6.11.4. FACTORS AFFECTING INTERNATIONAL CONTRACTING OPPORTUNITIES

Considered in its entirety, and apart from the post-war reconstruction and development activities, international construction business seems to flourish more

in the 1970s than in the 1980s. Before contracting services can be marketed overseas today, an understanding of how the global industry has evolved in the recent past would be appropriate. By identifying the factors affecting change, the planning horizon can be mapped out more realistically. McDowall (1984) observes that the changing international construction market could be attributed to the oil price uncertainty, over-capacity of the industry, aggressive competition, development of nationalism, Third World debt problems, Third World political instability, interest rate fluctuation, and unstable political situation in the once lucrative Middle East. Gray, et. al. (1985) report that the shrinking workloads experienced in the international construction market in recent years arose because :

1. The oil-rich countries have less money now for construction projects. Furthermore, the infrastructure is either completed or nearing completion in most of these formerly high-spending countries.
2. Many developing countries cannot afford to pay for their construction works even though their infrastructural requirements are far from complete.
3. As the newer contractors begin their debut in the international arena, competition subsequently becomes more intense in an already shrinking market.

Without doubt, much of the lucrative construction projects in the 1970s were largely concentrated in West Asia. As The Plain Truth (1988) reports, the Arab oil producers who realised that their oil reserves may not last indefinitely, have embarked on a frenzied programme of construction for their manufacturing and agricultural industries as well as other public and social facilities to benefit their people. With their new found wealth, exorbitant prices were often paid for their construction works. This appears to continue until the early 1980s when energy-saving measures and the general inability to afford high oil prices by non oil-producing countries led to a drastic cut in oil consumption. By 1981, the price of oil has already commenced on a down-hill slide which turned into a crash in 1985-86. The fall in oil revenues has severely curtailed the ability of many oil-producing countries in both financing their on-going and new projects. Competition among international contractors, as a result, has intensified tremendously.

As Cravens (1986) has observed, there are five competing forces which affect performance :

1. Rivalry among existing firms.
2. Threat of new entrants.
3. Threat of substitute products.
4. Suppliers' bargaining power, and
5. Buyers' bargaining power.

The firm may therefore either lead, challenge or follow the price-setter. In exceptional cases where the firm possesses a differential advantage, a niching strategy may instead be adopted. To this end, firms may adopt either or both the intrinsic and extrinsic approaches to procuring contracts. In the intrinsic approach,

the firm places its primary emphasis on coming to terms with a problem of interest and importance to the client. The extrinsic approach, on the contrary, extols the firm's problem-solving abilities. As Calvert (1986) notes in the marketing of construction contracting services, a good presence, technical knowledge, an ability to communicate, and an attractive financial package are the key essentials in competing for international construction contracts.

## 6.12. MARKETING PRACTICES IN CONSTRUCTION EXPORTS

Marketing practices in the field of construction exports have been prevalent regardless of whether management has adopted the marketing concept as a formal or informal function within the company. This phenomenon has been reflected by Calvert (1986) who observes that construction business may be obtained through speculation, standing arrangement, reputation, recommendation, negotiation and a host of other open and selective tendering systems. As a result of the present-day competitive environment and increasingly sophisticated constructional requirements, a variety of innovative services have been introduced into international contracting to include financial engineering, countertrade, technology transfer and joint ventures. (These will be examined in greater details later in the next chapter). As Fellows, et. al. (1983) have noted, construction firms have responded by adopting strategic modes such as acquisition, merger, joint venture, licensing, and service / product development. Again, the choice would seem to depend on whether the firm concerned is pursuing a long-term market share perspective or a short-term profitability objective.

The importance of track record and reputation has been referred to by Bostock (1975) and Murphy (1985). Not only is the company required to possess an impressive record elsewhere to gain the confidence of host sponsors, but similarly the reputation of the exporting nation cannot be oversimplified in the world markets. The classical example in this area undoubtedly belongs to the post-war Japanese industry who have managed to shrug off their inferiority image by switching from being product oriented to being marketing oriented. In surmounting the initial hurdle of penetrating a new construction market, attention needs to be given to the standard of prequalification documents, the demonstration of ability and experience, and if required, local registration. In a reference to contracting in the Middle East, Leslie (1982) recognises that

> "marketing, project selection and prequalification as an acceptable suitor for the process of tendering has become a specialised operation. In the international market place, the contractor has first to demonstrate his ability to deliver the goods, through a proven track record, financial ability, experience and contacts (Leslie, 1982:152)".

Prequalification and registration with the WB and other major aid funding agencies may also need to be initiated. Contractors from the more developed countries can seek to obtain repeat business in the future by assisting clients in developing countries,

and in the process, gain their confidence.

Inevitably, a first-hand evaluation of overseas markets is necessary to generate factual information for decision-making. Apart from establishing personal contacts in foreign markets, a visit to the market concerned can reveal much information about the operating conditions as well as the degree of competition. While technological know-how tends to dominate civil engineering contracts, Shui On (1987) suggests that social and business contacts may in fact be the key factors in securing private building contracts. Dawson (1981) notes that the success of a company's construction exports may be attributed to placing a knowledgeable representative in the field some six months before bidding for a particular contract commences. In other areas, advance parties may need to be sent to scout out the prospects in another country. Likewise, it would be desirable to maintain an advantageous position in a potential foreign market before other competitors start to arrive. This, as Gerwick Jr. and Woolery (1983) have pointed out, can be accomplished by establishing an appearance through permanent residence in the host country. Domestication has the added benefit of overcoming the alien image and, by participating in the activities of local associations and organisations, can merge the foreign firm into the local industry further. A presence in the foreign country can be established through branch offices, locally incorporated subsidiaries, local representatives or associate offices, and by the acquisition of or the merger with other local companies. This perhaps accounts for the reason why European companies have maintained offices in Hong Kong as a stepping stone to the Chinese market. Likewise, some Japanese contracting companies have also established a presence in Western Europe in anticipation of the Single European Market in 1992. The need to set up marketing offices in the major agencies' borrower countries is, however, more pressing. Where necessary, a developer-cum-contractor organisation may also be set up in the foreign market.

For the company intent on joint venturing to establish a presence in the overseas market, there are two main options available :

1. The company may joint venture with other foreign contractors already established in that market, or
2. The company may joint venture with established local contractors in that market.

Alternatively, the company may "piggy-back" or subcontract from leading international contractors already in that market. As Wells (1986) and Friedland (1986) have recognised, subcontracting or "piggy-backing" on contracts captured by the industry's giants represents an indirect approach for market entry. The high cost of developing new export markets and the less intense competition in bidding for subcontracts have led many firms from developing countries to use this form of marketing operations. Furthermore, the major international funding agencies may look favourably to financing projects in developing countries which contain some elements of subcontract or joint venture involving a developing country. Because of

their resource limitations, contractors from developing countries would be able to benefit more from allying with their more established international counterparts rather than from competing with them. Again, there seems to be two main options opened in subcontracting :

1. A contractor may subcontract from contractors of other nationalities in the foreign market, or
2. A contractor may subcontract from contractors of the same nationality in the foreign market.

In some cases, "vehicle agents" may be deployed to spearhead a country's export effort. These are basically government-backed construction companies assigned with the task of winning foreign contracts which are subsequently divided and farmed out to their own local firms. In this way, the undesirable competition between contractors from the same country can be avoided without jeopardising the nation's chance of success in the foreign markets. In the case of exporting the British highway engineering expertise, Benjamin (1982), likewise, considers the issue of how both the public and private sectors' skills can be united further to procure overseas works.

Construction firms may also contract with other non-construction related companies from their own country to build offices and factories, etc. in overseas markets. This arrangement can be realised easily if overseas investors, having dealt satisfactorily with a particular local contractor in their domestic market before, indicate a preference for their foreign development to be built by the same contractor or some other contractors from their own country. Even in the developed world, O'Neill (1986) observes that some of the Japanese contractors have established their initial foothold by "piggy-backing" on the backs of exporting Japanese manufacturers with foreign direct investments. From there on, the Japanese contractors then function as independent competitors, particularly in the field of property development.

Construction firms interested in exploring foreign markets may also participate in overseas trade missions. These may be organised by their own trade association or by their government at national level. Trade missions enable participants to have a first-hand knowledge of the operating environment in a foreign land and, where appropriate, allow business contacts to be made. Lucas (1986) calls upon marketers to prepare the requisite company brochures, project data sheets, slide presentations, and other marketing tools which may help trade missions' participants in selling their services. Other marketing tools may include direct mailing to prospective overseas clients, supplemented, if necessary, by advertising in the foreign press and / or trade journals.

Because appeal to national pride can be an effective marketing ploy which recognises a developing country's legitimate need for a focal point of achievement, Gerwick Jr. and Woolery (1983) have urged international contractors to capitalise on this issue as their strong selling point. Likewise, nationalism and local pride should

be recognised and worded accordingly by the international marketer in his proposal. Gerwick Jr. and Woolery (1983) suggest that each developing country would want to keep up with progress made in the neighbouring countries. Hence, the successful completion of a specialised facility in one country may be utilised to establish the builder's creditability in neighbouring countries. Ascertaining the maximum amount of finance available to a foreign client prior to tender submission may also place the international contractor in a more amicable position. If the contractor's estimate correctly indicates that all bids will probably exceed the funding available to the foreign client, he can then offer the following alternatives ahead of all his competitors :

1. Gives an alternative design.
2. Reduces the scope of the project.
3. Offers delayed payments, and
4. Substitutes payments with some form of countertrade.

Murphy (1985) similarly believes that success at winning bids for macro-projects often depends on the contractors' abilities to incorporate the existing skills and capabilities found in the host country in their overall bid packages. Putting together the successful bid, therefore, appears to be largely a matter of correctly assessing and fulfilling both the Process Technology gaps and the Project Management gaps. In this respect, arrangements for the transfer of technology and training programmes for the host country's labour force need to be provided for.

Niching is another marketing strategy which can be utilised by international contractors gainfully. In the case of the smaller international contractors from developing countries, a strategic move would be to concentrate on market niches and projects where the much larger American, European and Japanese contractors will not bother to enter. Similarly, a niching strategy could mean placing emphasis on overseas projects which are too small for the larger foreign contractors but, nonetheless, are considered too big for the local contractors. In this manner, concentration is only directed to specific niches which are profitable. In his analysis of the South Korean international contracting industry, Cotton (1985) observes that the Korean niche in the global construction industry in the 1970s has predominately been in the labour intensive markets.

Foreign contractors contemplating breaking into a new market for the first time may, in all probability, have to expect a higher risk of loss or, at best, only to breakeven. There is a tendency to put in a relatively low bid if the foreign contractor hopes to win a bid first time in a new market. Unless the same contractor can reduce or avoid making a loss through other means (eg. by a practice of transfer pricing back to the parent company in the home country), the contractor inevitably runs the risk of incurring a loss. Shui On (1987), for instance, reports the submissions of remarkably low bids by Chinese contractors in Hong Kong as a strategy for capturing the market. On the other hand, Westring (1985) points out that submitted

tenders are likely to be for one amount if the tenderers are confident that a contract award will follow without any recourse to negotiations, and for a different amount if they expect to be called in for further negotiations before the award. As such, some tenders may deliberately include a margin for manoeuvre in the bargaining process. Others may be unrealistically low with the contractors hoping that they will be able to redeem their losses, one way or another, during the course of negotiations.

In the case of overseas markets which have become saturated and intensely competitive, international contractors may either withdraw, continue to remain behind or diversify into some other activities. As Rao (1987) maintains, there are several strategic choices generally opened for contracting firms to cope with the vagaries of their operating environments. These include :

1. Expansion of the market - Either in the form of increased market share for the existing range of activities or the exploration of foreign markets.
2. Horizontal diversification - For example, a company which specialises in housing may undertake different types of housing activities, including, among others, prefabrication.
3. Vertical integration - For example, construction companies undertaking the manufacture of construction products.
4. Concentric diversification - For example, a firm which specialises in housing may venture into hoteliering or industrial structures; a tunnelling specialist moving into mining; those engaged in ports and jetties construction may also undertake dredging, etc. The essence of this strategy is to venture into allied fields by building on the internal strengths of a firm.
5. Growth through financial outlays - Examples may include the followings :
   a. Investment in hotels, amusement parks, etc., where the entire complex could continue to be owned by the contracting company or leased out to yield an adequate return.
   b. The construction of roads and bridges with future revenues generated through the levying of tolls.
   c. A contracting company doubling up as a developer.
   d. Other means of financial engineering through bilateral credits, international funding and countertrade activities.
6. The formation of conglomerates for the purpose of diversifying out of the construction sector. Construction companies, for instance, have diversified into the areas of shipping, leasing and the manufacture of fertilisers.

Rao (1987) suggests that the main reasons why firms diversify arise when :

1. Their objectives can no longer be met within the product market defined even after expansion.
2. The retained cash exceeds the total expansion needs even after past objectives have been met through attractive expansion opportunities, and
3. Diversification opportunities seem to offer greater returns than the current

expansion opportunities.

Rao (1987) continues on to note that organisations which diversify but yet remain close to their central skill normally outperform others who do not. Likewise, the above strategic choices cannot be looked at in isolation. Where appropriate, a combination of options may take place - for example, integration and diversification which take place at the same time as part of a marketing strategy. At a macro level, the significance of diversification as a marketing strategy has been emphasised by Jacobs (1969) who argued for the need for cities to diversify rather than concentrate in only one export commodity. Cities that concentrate in a single export commodity, Jacobs (1969) reasons, tend to be exposed to a greater element of risk when demand is no longer there. In order to thrive, cities would need to generate and specialise in a diverse range of products and services for export. The generation of new exports, as Jacobs (1969) has identified, can be achieved :

1. Through servicing existing exports.
2. Through new exports, and
3. Through servicing materials used as products made in another country for import at a later date.

The role of research and development by construction companies can also play a significant part in meeting overseas demands. Apart from the actual construction phase, contracting companies have also frequently been asked to provide all or some aspects of the design inputs to the project. Shui On (1987), for instance, observes that some of the Japanese contractors, backed by their own elaborate research and design facilities, have actually taken the initiative to promote local infrastructural development in Hong Kong. The provision of operations and maintenance management services after the completion of a project is another avenue which can enhance the attractiveness of a contractor's service offerings. It would seem that an all-in package deal construction service can be more attractive to foreign clients who are seeking to reduce the number of parties which they need to enter into contracts with. Within the context of the international construction market, Gray, etc. (1985) note that enhanced competitiveness can only be achieved by contracting companies who offer virtually everything from designing the project to maintaining it after completion.

Contractors who can offer some form of financial inputs to a project also tend to stand a higher chance of success in winning the contract. This appears to be particularly so in the cash-strapped developing countries of the Third World. Contracting companies can similarly gain an edge over their competitors if some form of link-up can be arranged with the bilateral tied-aid provided by their respective governments. Other novel forms of financing such as Build, Own and Operate (B.O.O.) or Build, Operate and Transfer (B.O.T.) can provide yet another competitive edge to the contracting firm who can offer them readily. As Lethbridge (1987) argues in support of private financing, contractors must now adopt a different

approach to business development because the contract can no longer be won simply by waiting for opportunities to bid in the traditional way. Likewise, contractors cannot ignore the vast potential which franchising and other means of innovative financing offer if they hope to maintain their volume of work and associated earnings. While the contractor's involvement under a traditional tender invariably terminates at the end of the construction phase, an involvement with a franchise, however, lasts much longer. Where the contractor has taken the lead in developing his proposals, three alternatives are generally available :

1. The contractor can limit his obligations to only the construction or supply contract if he can include a co-promoter in his proposal whose interest is only in operating the facility once it has been built.
2. The contractor may either buy in or privatise an existing public sector operator. This approach is, however, only available where the project itself involves some form of expansion of an existing facility or construction of new facilities. The revenues are normally generated from toll collection in the case of roadworks and bridges.
3. A contractor may also sponsor a franchise bid primarily for the purpose of generating construction or equipment supply contracts for himself. The contractor can then either find an operator partner, or purchase an existing operating facility or company, failing which he may then have to persuade the authorities concerned of his own ability to manage or procure management of the facility. Since the life of the constructed asset will normally exceed the duration of the franchise, it will then be reverted to the public sector and handed over to the government in working order when the time arrives.

Involvement with franchise offers would mean that the contractor has to have at his disposal a diverse range of expertise including economics, market research, legal, accounting and engineering consultants, equipment suppliers, facility operators, prospective equity investors, and financial advisors. Because the viability of these schemes can only be known after the facilities have been commissioned into operations, the contractor is therefore shouldering a high level of risk. Nonetheless, the attractiveness of a franchise bid over a conventional public sector approach offers more opportunities for private enterprises to gain entry into the domains of the public sector. As Lethbridge (1987) has noted, the following benefits may be accruable :

1. The public sector in the host country does not need to incur any capital costs nor provide any financial guarantees.
2. Compared to the same facility owned and operated solely by the public sector, the user's cost should now be lower.
3. The contractor alone is now responsible for all construction costs and time overruns.
4. The operator alone is now responsible for operating failure.

5. There is no adverse effect on existing consumer rights.
6. At the end of the franchise period, the facility normally reverts to the public sector free of charge, and
7. Financing can usually be facilitated in the case of public service facilities which have the capability to generate revenues through the impositions of tariffs on their operations. Roads, railways, bridges, airports, water pipelines and electricity cables are some typical examples of such public service facilities.

Having examined the subjects above which are frequently discussed in international contracting, it would be appropriate now to deal with a less popular topic on the unwritten agenda. Ethical issues constitute another area of concern to all those involved with international contracting. Whereas promotion and trade missions conducted at ministerial level may be legitimate, the use of political influence at the same level - particularly in ruthlessly wielding the donor country's power in transactions involving bilateral tied-aid - is unlikely to be condoned. Gray, et. al. (1985) report that this form of non-standard support at governmental level, along with the contractor's patience to hang on to a project for several years, has become increasingly rampant in the international market. Cotton (1985), for instance, notes that the South Korean President, along with senior executives from some of the major companies, visited Southeast Asia and Africa in 1980-82 in search of new contracts. Some financially lucrative projects were subsequently won in the process.

In other instances, Gerwick Jr. and Woolery (1983) recognise that some despicable contractors have resorted to bribes and payoffs as their major marketing tools in securing international contracts. Other less despicable ones have an unwritten agenda for establishing rapport with the host country's public works officials by indiscriminate inducements and offers of all expenses paid overseas trips for the so-called purpose of field studies. The ethical contractor, on the other hand, can overcome all these practices by emphasising all his other marketing capabilities and by making known his reputation for getting the work completed efficiently and economically. As Gerwick Jr. and Woolery (1983) have suggested, a worldwide reputation is perhaps the strongest marketing asset available.

Before proceeding on to discuss financing, countertrade, technology transfer and joint venture in some greater details in the next chapter, it would be appropriate here to conclusively examine the exhortations of others relating to the strategic conduct of international construction business. Hutcheson (1981) suggests that international marketing should be founded on research in a way similar to domestic marketing. In this manner, important new areas of business may be discovered and developed. Ohmae (1982), likewise, advises firms not to venture into the global market at once. Rather, their product or service offerings should first be tested on a regional basis before proceeding further offshore. In the case of conglomerates with diverse businesses spread over a large geographical market, MacMillan (1986) proposes the use of portfolio analysis by top management to both manage diversity and to make

sensible strategic decisions. Gerwick Jr. and Woolery (1983) maintain that the contractor must first have a saleable commodity before a sales campaign can be planned. As such, the first and most essential commodity that a company must be able to supply to ensure international success lies in possessing the requisite technical know-how in a specialised field. It would, however, appear that the fulfilment of this requirement alone is insufficient. As Rao (1987) has previously concluded,

> "The construction companies in the future will have to enlarge the scope of their activities, develop a strong research and development base and adopt an aggressive marketing strategy. Research on new means of financing which can give an advantage over competitors will take on greater importance in view of the shortage of funds in developing countries (Rao, 1987:36)".

## 6.13. SUMMARY

The role of marketing can be seen to be growing in significance with increasing competition in both an expanding and declining market as well as with the need to procure additional work as a firm grows in size and capacity. Although the significance of marketing cannot be disputed, the industry has, however, been slow in adopting its function rigorously. Twelve reasons were given to explain this lack-lustre attitude towards the marketing concept. Marketing inputs can be significant in both open and selective tendering, prior to searches for opportunities to submit tenders and in prequalification exercises. Seven criteria used for prequalification were identified. A shift from competitive tendering to negotiated contracts would also provide a construction company with a higher rate of success. This shift, however, can come about only after the appropriate marketing inputs operationalised by the company are received and accepted favourably by the clients. The significance of marketing in the construction industry can, likewise, be undermined by an overemphasis on using price as the only key criterion for selecting a tender. Price is, however, only one of the 4 P's in the marketing mix concept. The ability of a contracting company to provide loans and other funding arrangements to finance a project can, in some cases, be more important to the client than price. The analysis of strengths, weaknesses, opportunities and threats is a useful starting point for reviewing strategic thinking and marketing strategies. The procedures and factors which influence the formulation of marketing strategies are dealt with. Strategic marketing, marketing management, market segmentation, market share, entry barriers, and the contributions from military strategies are examined and their significance for marketing applications noted. Although the significance of marketing has been recognised in the international construction industry, there are still problems associated with construction exports. Appropriate entry modes need to be synchronised with the requirements of host governments if marketing risks are to be rationalised. Marketing has also become increasingly more significant with growing competition in the international construction industry. The reasons for this growing competition as well as the subsequent marketing

strategies adopted by some companies to deal with this trend are noted.

REFERENCES


1 ADB, "Guidelines for Procurement under Asian Development Bank Loans", Revised Edition, Asian Development Bank, May 1981.

2 ADB, "Handbook on Policies, Practices and Procedures relating to procurement under Asian Development Bank Loans", Central Projects Services Office, Asian Development Bank, February 1983.

3 Andrews J., "Contractors' strategy in a declining construction market", The Professional Builder, Vol. 3 No. 1, March 1987, pp. 43-49.

4 Ansoff H. I., "Corporate Strategy : An analytic approach to business policy for growth and expansion", McGraw-Hill, 1968.

5 Baker M. J. and Orsaah S., "How do the customers choose a contractor ?", Building, 31 May 1985, pp. 30-31.

6 Banwell Committee Report, "The Placing and Management of Contracts for Building and Civil Engineering Works", HMSO, 1964.

7 Baum W. C. and Tolbert S. M., "Investing in Development : Lessons of World Bank Experience", The CIDB Review, July - September 1986, pp. 99-110.

8 Bell R., "Marketing and the larger construction firm", Occasional Paper No. 22, Chartered Institute of Building, 1981.

9 Benjamin C. B., "Exporting our Highway Engineering expertise", The Highway Engineer, April 1982, p. 36.

10 Bloom P. N., "Effective Marketing for Professional Services", Harvard Business Review, September - October 1984, pp. 102-110.

11 Bloom P. N. and Kotler P., "Strategies for high market-share companies", Harvard Business Review, November - December 1975, pp. 63-72.

12 Bonoma T. V., "Making your marketing strategy work", Harvard Business Review, March - April 1984, pp. 69-76.

13 Bostock P., "Public Relations and Advertising in Export Promotion", The Singapore Manager, Vol. 9 No. 2, December 1975, pp. 15-18.

14 Brech E. F. L. (Ed.), "Construction Management in Principle and Practice", Longman, 1971.

15 Calvert R. E., "Introduction to Building Management", 5th Edition, Butterworths, 1986.

16 Chan W. M., "International Contracting - some key business considerations", in A Regional training course in building construction project management, Singapore, 25 March - 6 April 1985, pp. 1-14.

17 Cochlin D. and Dix R., "The meaning of Marketing", Building 219, 21 August 1970, p. 67.

18 Cotton M., "The Korean Lesson", Building Technology and Management, March 1985, pp. 16-19.

19 Cowham C., "Towards More Effective Marketing Strategies", in "Construction & Real Estate : Looking Ahead", 9th Building and Estate Management Society Seminar, 1985, pp. 1-12.

20 Cox V. L., "International Construction : Marketing, Planning and Execution", Construction Press, 1982.

21 Cravens D. W., "Strategic Forces Affecting Marketing Strategy", Business Horizons, September - October 1986, pp. 77-86.

22 Dawson J., "Market Exploration and Evaluation", in Post-symposium Proceedings of the CIB W-65, Third Symposium on Organisation & Management of Construction, 6-8 July 1981, Dublin, Ireland, Vol. IV, An Foras Forbartha, 1981, p. 150.

23 Drobig K. N., "Recommended Tendering Procedure", in "Contracting for International Projects", FIDIC Seminar in Hong Kong, 6-7 December 1982, pp. 45-53.

24 Eurofi (UK) Ltd., "Development Aid : A guide to national and international agencies", Butterworth & Co. (Publishers) Ltd., 1988.

25 Feldman L. P. and Page A. L., "Harvesting : The Misunderstood Market Exit Strategy", The Journal of Business Strategy, Spring 1985, pp. 79-85.

26 Fellows R., Langford D., Newcombe R. and Urry S., "Construction Management in Practice", Construction Press, 1983.

27 Fisher N., "Marketing for the construction industry", Longman Group Ltd., 1986.

28 Foster G., "Mintzberg's Strategic Force", Management Today, April 1989, pp. 74-76.

29 Friedland J., "Korean Engineering / Construction : More Troubled Growth", The CIDB Review, July - September 1986, pp. 29-30.

30 Gerwick Jr. B. C. and Woolery J. C., "Construction and Engineering Marketing for Major Project Services", John Wiley & Sons, 1983.

31 Gilligan C. and Hird M., "International Marketing : Strategy and Management", Croom Helm, 1986.

32 Goodnow J. D., "Developments in international mode of entry analysis", International Marketing Review, Autumn 1985, pp. 17-30.

33 Gray J., et. al., "Construction Industry Hunts for New Fields", The CIDB Review, October - December 1985, pp. 63-74.

34 Greene M. R., "How to rationalise your marketing risks", Harvard Business Review, May - June 1969, pp. 114-123.

35 Hardy L. W. and Davies E., "The Marketing of Services in the UK Construction Industry", European Journal of Marketing, Vol. 17 No. 4, 1983, pp. 5-17.

36 Hayward D., "Japan : Recession spurs search for foreign markets", New Civil Engineer, 2 February 1984, pp. 12-18.

37 Hendon D. W., "Battling for profits - How to win big on the Marketing Battlefield", Business Consultants International, 1986.

38 Hewitt A., "Business Guide to World Aid Funds and Projects", 2nd Edition, Frances Pinter (Publisher), London, 1983.

39 Hofer C. W., "The Manager as a Strategist", The Singapore Manager, Vol. 5 No. 1, June 1971, pp. 26-31.

40 Hutcheson J. M., "International Marketing Techniques for Engineers", in

Post-symposium Proceedings of the CIB W-65, Third Symposium on Organisation & Management of Construction, 6-8 July 1981, Dublin, Ireland, Vol. IV, An Foras Forbartha, 1981, p. 145.

41 International Trade Administration, "A Competitive Assessment of the US microcomputer industry : Business / Professional Systems", US Department of Commerce, Washington D.C., August 1986.

42 Jacobs J., "The Economy of Cities", Penguin Books Ltd., 1969.

43 Jain S. C. and Punj G., "Developing Marketing Strategy : A Framework", Marketing Intelligence & Planning, Vol. 5 No. 1, 1987, pp. 34-39.

44 Jepson W. B. and Nicholson M. P., "Marketing and Building Management", Medical and Technical Publishing Co. Ltd., 1972.

45 Jurowich N., "Pre-qualification of contractors", in "Contracting for International Projects", FIDIC Seminar in Hong Kong, 6-7 December 1982, pp. 36-44.

46 Kale S. H., "A Strategic Approach to International Segmentation", International Marketing Review, Summer 1987, pp. 60-70.

47 Kotler P. and Singh R., "Marketing Warfare - 1980s", The Journal of Business Strategy, Winter 1981, pp. 30-41.

48 Leslie E. N., "The role of the contractor in the Middle East", Quantity Surveyor, August 1982, pp. 151-152.

49 Lethbridge N., "Private Financing", Trade Finance, No. 51, July 1987.

50 Lucas C. L., "International Construction Business Management", McGraw-Hill Book Co., 1986.

51 Lynn R. A., "Anticipating competitive reaction : Marketing Strategy in the 1980s", The Journal of Consumer Marketing, Vol. 4 No. 1, Winter 1987, pp. 5-12.

52 MacMillan K., "Strategy : an introduction", Journal of General Management, Vol. 11 No. 3, Spring 1986, pp. 75-94.

53 MacMillan K., "Strategy : Portfolio analysis", Journal of General Management, Vol. 11 No. 4, Summer 1986, pp. 94-112.

54 Macomber J. D., "You Can Manage Construction Risks", Harvard Business Review, March - April 1989, pp. 155-165.

55 McDowall A. D., "International aspects of the construction industry", in "Computer Technology in Construction", Institution of Civil Engineers Conference, 25-27 September 1984, Thomas Telford (London), 1984.

56 Mintzberg H., "Crafting strategy", Harvard Business Review, July - August 1987, pp. 66-75.

57 Moore A. B., "Marketing management in construction : A guide for contractors", Butterworths, 1984.

58 Mureau D., Torremans H. and Vilsteren L. V., "Singapore : Challenge for Economic Development", Eindhoven University of Technology, July 1984.

59 Murphy K. J., "Macroproject Development in the Third World : An Analysis of Transnational Partnerships", The CIDB Review, July - September 1985, pp. 53-63.

60 Myers J. J., "Government Influence on International Construction Contracts", The

CIDB Review, January - March 1986, pp. 35-47.

61 Newman F., "Export Marketing Strategy - You can make profits in Export Markets", in Symposium on "Export Promotion", AIESEC, 29 November 1975, pp. 1-7.

62 Ohmae K., "The mind of the strategist. Business planning for competitive advantage", McGraw-Hill Inc., 1982.

63 O'Neill B., "Japan Aids Overseas Success", The CIDB Review, January - March 1986, pp. 75-79.

64 Oxenfeldt A. R., "How to Use Market-Share Measurement", Harvard Business Review, January - February 1959, pp. 59-68.

65 Parkinson C. N., Rustomji M. K. and Sapre S. A., "The Incredible Japanese", Federal Publications, 1984.

66 Pellay S., "Contracting Sector Contends with Slump : Italy Diversifying for Recovery", The CIDB Review, April - June 1986. pp. 135-140.

67 Plain Truth, "What Happened to Arab Wealth ?", Worldwide Church of God, California, April 1988, p. 27.

68 Rabino S. and Zif J., "How to counter the onslaught of imports", The Journal of Business Strategy, Summer 1987, pp. 58-64.

69 Rao T. N. S., "Diversification in Construction Industry", Asian Architect and Contractor, August 1987, pp. 31-36.

70 Ries A., "The Mind Is the Ultimate Battlefield", The Journal of Business Strategy, July / August 1988, pp. 4-7.

71 Roberts E. B. and Berry C. A., "Entering New Businesses : Selecting Strategies for Success", Sloan Management Review, Spring 1985, pp. 3-17.

72 Rugman A. M., "Multinationals and Global Competitive Strategy", International Studies of Management & Organisation, Vol. XV No. 2, 1985, pp. 8-18.

73 Russo J. G., "Construction marketing in the USA : A viable system for success and control", Construction Papers, Vol. 1 No. 2, Chartered Institute of Building, 1981, pp. 29-35.

74 Schlissel M. R. and Giacalone J. A., "Budgeting the Strategic Marketing Plan", Managerial Planning, January / February 1982, pp. 25-29.

75 Schuster C. P. and Bodkin C. D., "Market Segmentation Practices of Exporting Companies", Industrial Marketing Management, Vol. 16, 1987, pp. 95-102.

76 Sedgwick A., "How to conquer markets", Management Today, January 1977, pp. 59-61.

77 Seymour H., "The Multinational Construction Industry", Croom Helm, 1987.

78 Shui On Quarterly, "Overseas Contractors in Hong Kong", March 1987.

79 Simmonds K., "Global Strategy : Achieving the Geocentric ideal", International Marketing Review, Spring 1985, pp. 8-17.

80 Strombom D., "Selecting the consulting engineer", in "Contracting for International Projects", FIDIC Seminar in Hong Kong, 6-7 December 1982, pp. 18-23.

81 Trench P., "Marketing - Does it apply to Builders ?", Building Technology and Management, April 1969, pp. 83-84.

82 Wells J., "Developing the export of technical consulting services", Readings in Marketing, Marketing Institute of Singapore, October / November 1986.

83 Wells Jr. L. T., "A Product Life Cycle for International Trade ?", Journal of Marketing, Vol. 32, July 1968, pp. 1-6.

84 Westring G., "Essential Elements of International Tendering", Readings in Marketing, Marketing Institute of Singapore, November 1985.

85 Wilson A., "Marketing : A philosophy for success", Contract Journal, 31 January 1985, pp. 16-17.

86 Wind Y. and Robertson T. S., "Marketing Strategy : New Directions for Theory and Research", Journal of Marketing, Vol. 47, Spring 1983, pp. 12-25.

87 Wittreich W. J., "How to Buy / Sell Professional Services", Harvard Business Review, March - April 1966, pp. 127-138.

88 World Bank, "Guidelines for Procurement under World Bank Loans and IDA Credits", World Bank, March 1977.

89 Yip G. S., "Gateways to entry", Harvard Business Review, September - October 1982, pp. 85-92.

CHAPTER SEVEN

# THE MARKETING IMPLICATIONS OF FINANCING, COUNTERTRADE, TECHNOLOGY TRANSFER AND JOINT VENTURE

## 7.1. SOME FINANCING ASPECTS

Project financing has been espoused on many occasions as an important marketing tool for international contracting activities. As such, a knowledge of the various financial options available - besides the traditional documentary credits, letters of credit, etc. - is inevitably essential. There is therefore a need to appreciate that apart from improving cash flow or rationalising risks through rediscounting and factoring facilities, export credit guarantees may also double as collaterals for securing loans from the commercial banks. As Gould (1986) has observed, in the current economic climate, finance can arguably be the most important consideration in getting a construction project off the ground. In some instances, financial considerations may, in fact, take precedence over the technical or quality merit of a contractor's proposal. Likewise, an ability to provide attractive financing packages to potential clients will often determine which international contractor will win the contract. International financing of this nature can take several forms. Among the more innovative ones, the most common arrangements, as noted in the previous chapter, would seem to be the funding of road or bridge construction for toll collection by a consortium of contractors and / or finance houses.

The more traditional form of tying bilateral aid to the donor country's products and services has long been recognised as an export generating mechanism. In the context of the British construction export industry, Holland (1986) argues that there is strong arithmetic evidence to suggest that

> "an increase in aid would not only provide substantial employment for UK manufacturers but, if channelled through bilateral aid and used as mixed credits, would be at no cost to the Exchequer since the tax on the increased gross national product would be larger than the aid (Holland, 1986:17)".

Parkinson, et. al. (1984), likewise, note that the Japanese foreign aid programme has helped Japan's export business tremendously. Japan has given a substantial amount of aid to developing countries which take the form of export credits for the purchase of Japanese products. O'Neill (1986), on the other hand, argues that the distribution of Japan's development aid for construction project may be divided into three broad categories, namely :

1. Contributions to international aid agencies in the form of multilateral assistance.
2. Bilateral assistance, and
3. Notionally untied aid.

Japan, therefore, seems to has developed an impressive range of diverse facilities, unparalleled by many other countries, to provide finance to her private firms in search of international contracts. "Soft" credits involving long-term loans at low, concessionary rates of interest were frequently arranged to support overseas

projects.

McDowall (1984) notes that the task of providing international finance in construction has become increasingly sophisticated. Contractors are often required to provide finance in immensely complex forms involving various combinations of export credit, soft loan / aid, commercial credit, barter and countertrade. Governmental support apart, the contractor should also be able to accept payment in a mixture of other currencies. As Golden and Green (1986) have observed, mixed credits have eventually emerged to play a significant role in the battle for Third World markets amidst the growing export competition. The concept of mixed credits arises when public development aid funds are combined with private export credits. In the process, a commercial edge is given to the exporter (normally from a developed country) who offers to a developing country a mixture of foreign aid funds and conventional commercial assistance. The final result would be beneficial to both parties as the real price (as opposed to the true costs) of a project can be lowered for the recipient country and the exporter is now placed in a more advantageous position in relation to other contenders. Trade financing on the part of the exporter would therefore appropriately includes either Buyer Credit or Supplier Credit or a combination of both. By blending government aid with commercial credits, Arnold (1986) believes mixed credits can increase the competitiveness of a country's exports to other developing countries because the effective rates of interest to the latter on project loans can be substantially reduced. As such, mixed credits will continue to function as a key export financing tool for many governments. However, this arrangement is not without its shortcomings. As Arnold (1986) recognises, while mixed credit packages may appear to be a cheap form of finance, there are, nevertheless, additional costs involved. In the end, the recipient country may have to pay more compared to a project which has been put out to international competitive bidding under the traditional approach. There can also be other modifications to the financial model described above, a good case in point being parallel financing. Whereas mixed credits have official aid and commercial funds blended together and lent for a single contract, in parallel financing, the monies are loaned separately for two contracts, although within the same development project.

Financial engineering for complex international projects, in Causilla's (1988) opinions, includes the combination of project management and financing for the optimum use of funds in project development. Different contracting approaches, each with its own financing implications, have been developed for this purpose, including

1. The Turnkey Contracting Approach - Where the Employer appoints a single contractor to deliver a complete operating facility.
2. Islands - A form of modified turnkey which attempts to group together the major and related areas of a facility for a single contractor.
3. Components / Multi-packing Approach - Where the Employer first appoints an

Architect / Engineer / Project Manager to prepare the conceptual and detailed design of a facility. This is then followed by the procurement of the necessary plant and materials. Under this arrangement, the Architect / Engineer / Project Manager also perform the function of identifying and optimising the sources of financing and materials.

4. Build, Own and Operate Approach - As noted earlier, this is an arrangement where a single contractor or a consortium of investors is formed to build, own and operate privatised infrastructural facilities. For example, in the case of a power station, the contractors / investors would be compensated by the sale of electricity to the utility board. Any of the contracting approaches mentioned above may be used for this purpose.

Other forms of financing facilities such as factoring and syndicated loans, etc., may also be of relevance for international construction operations. Factoring involves the purchase of debts by a factor from one party (normally the exporter), without recourse in the event of bad debts, and with notification to the buyer informing him to pay direct to the factor (CEPU, 1987). The international syndicated loan mechanism, on the other hand, enables borrowers to raise large amount of finance in a relatively short period of time. Apart from these developments in the finance industry, international contractors have also been instrumental in introducing other innovative forms of financial incentives. Property developers have undoubtedly recognised the benefits of contractor-financing. As Shui On (1987) has reported, in the redevelopment of the Standard Chartered Bank Building in Hong Kong, a buy-back arrangement was entered into wherein the payments for construction costs will be made to the contractor in the form of a monthly rental for some twenty-two and a half years. In this manner, the contractor concerned bears the risks of inflation and interest rate increases for his investment (i.e. construction costs and future remuneration) over the same time frame. Shui On (1987) also reports the aggressive approach adopted by the Chinese and other international contractors in Hong Kong who waived the usual requirement for developers to honour progress payments during the course of construction. Deferred payment or payment after construction, undoubtedly offers an extremely attractive financial package to potential clients.

## 7.2 COUNTERTRADE

Countertrade has been adopted as one among several other marketing tools by exporters dealing with cash-strapped developing countries and the East European bloc of countries. Kaikati (1976) notes that the dire global economic conditions have, in the past, led to a revival of the barter system as an important tool in international marketing. Verzariu (1985), likewise, believes that countertrade can be a deciding factor between prospering and losing market share in today's international market place.

Countertrade is a general term for the various trade arrangements which require the

purchase of products as a condition for sales. Apart from barter, countertrade does not mean the functioning of trade without money. Rather, it functions as an alternative form of trade financing. Some forms of reciprocal purchasing obligations are therefore associated with the export of goods or services, where payment is in kind rather than cash. Cho (1987) suggests that countertrade is a viable option for many developing countries because it enables them to :

1. Conserve scarce foreign exchange resources.
2. Dispose of their surplus or otherwise unsaleable goods and commodities.
3. Penetrate existing export markets further or create new export markets.
4. Reduce the uncertainty of domestic production plans.
5. Achieve the balancing of bilateral trade, and
6. Expand volume by selling major commodities at a discount without any accusations of dumping practices.

In short, this enables cash-strapped countries to preserve their hard currencies, rationalise their balance of trade, gain access to new markets, improve their manufacturing capacities, and maintain prices of their exports. On the other side of the fence, Lai (1987) contends that the international firms which partake in countertrade activities may be able to :

1. Benefit most from sales opportunities.
2. Gain a source of supply for raw materials, component parts or finished products.
3. Maintain goodwill in new markets, and
4. Capitalise on concessionary tariff and taxation incentives given by the government.

On the other hand, countertrade, like many other trading arrangements, is not without its pitfalls which can far outweigh the benefits a company expects to receive in return. Cho (1987), for instance, acknowledged that the countertraded goods offered for payments are often limited in variety, of poor quality, unsuitable for the sophisticated markets of the West, and cannot be incorporated easily into the production process of the exporting organisation. In addition, the search for a second buyer for such goods is neither easy nor costless, and the exporting company may have to dispose of them at a loss if ever a buyer can be found. This situation can be aggravated further if the exporting company is unfamiliar with the goods countertraded. Although trading houses may serve to alleviate some of the problems, their services are, nevertheless, not without costs and are frequently inflexible. A higher level of uncertainty is also incurred although the degree involved depends on the types of countertrade arrangements entered into.

Tan (1986) has identified the basic types of countertrade transactions, including barter, counter-purchase, compensation, offset and switch-trading. These are depicted in Figure 7.1 below.

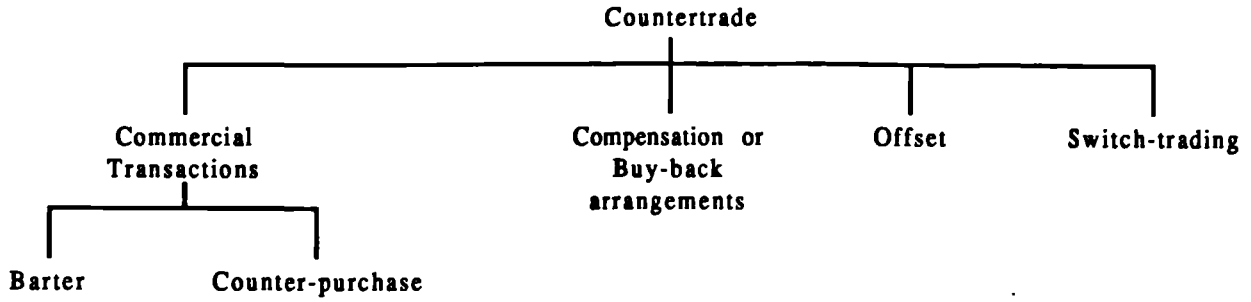



FIGURE 7.1 : TYPES OF COUNTERTRADE ARRANGEMENTS

As the crudest form of countertrade, barter refers to the direct exchange of goods or services which have offsetting values. No cash transaction is involved here and the obligations are fulfilled under one contract. Where the transactions involve separate contracts, this is then known as counter-purchase. Here, the exporter undertakes to buy-back, over a short-term period, goods or services that are not directly derived from or related to the technology, plant or equipment supplied by him. For example, an automobile manufacturer may deliver a consignment of cars to another country on the understanding that he will purchase over a period of, say, one to five years, coal, oil, and other machine parts in return.

Where the transaction involves repayment in the form of goods directly derived from or produced by the technology, plant or equipment provided by the exporter, then this arrangement is known as the buy-back or compensation arrangement. An international contractor may, for example, elect to invest in building a factory for the production of canned foodstuff in China without any initial reimbursements. Under the buy-back or compensation arrangement, the contractor will then be remunerated from future sales of the products derived from the factory. This agreement is obviously for the larger deals and may extend over a time duration which is much longer than both the barter and counter-purchase arrangements.

Offset deals involve arrangements where the exporter is obliged to assist in and / or to arrange for the marketing of products produced by the buying country. In other cases, the seller has to allow some portion of the exported products to be assembled or manufactured by producers located in the purchasing country. For example, the government of the buying country may agree to the purchase of aircraft from a company in another country provided the latter undertakes to act as a broker to sell an agreed amount of products from the buying country in the exporting country. Likewise, the government of the buying country may consent to the same purchase provided the aircraft manufacturer agrees to the setting up of a plant in the buying country for the assembly or manufacture of the aircraft component parts.

Switch-trading essentially refers to the method of disposing unwanted countertraded goods by the exporters in some third country markets. This arrangement is frequently undertaken by a switch-trading house and involves a series of complex transactions before a willing, hard-currency buyer can be found. The hard currency

proceeds, less the switch-trader's discount, are then transferred to the party who has originally transferred its ownership rights over the goods to the switch-trading house. Because of the large number of parties which may be involved until an eventual buyer can be found, switch-trading is therefore the most complicated among the family of countertrade arrangements.

Despite the complexities and uncertainties which some of the countertrade arrangements may involve, no exporting company can yet afford to ignore their growing importance in international trade. Lai (1987) has addressed this issue within the context of construction when he notes that

> "Contractors who have ventured into developing countries have often found to their dismay that the physical construction of a project may only be a part of the contract. The ability to secure a project may have to depend on equity participation in the development or acceptance of payment in kind for the work done. More and more, countertrading is creeping into the international construction market (Lai, 1987:33)".

Contracting companies who wish to capitalise on this growing trend may therefore contemplate the setting up of trading subsidiaries to deal with all their countertrade activities. Yoffie (1984) suggests that the managers of international companies who insist on adopting traditional techniques of financing, without resorting to countertrading, may gradually lose out in the international trade war. As Yoffie (1984) maintains, companies which are not industry leaders may find countertrade to be a valuable marketing tool simply by providing a service which other competitors have overlooked or ignored. This enables willing companies to differentiate their products or services from those offered by their competitors. All things considered (i.e. comparable price, technology and quality), a willingness to countertrade often separates the winners from the losers. Success in countertrading, Yoffie (1984) advocates, lies in :

1. Deciding whether the company wants to be in the countertrade business.
2. Building the costs involved into the price.
3. Knowing the countries involved.
4. Knowing the products likely to be involved in the countertrade transactions, and
5. Understand the procedures involved.

## 7.3. TECHNOLOGY TRANSFER

The contributions from research and development to garner new technologies have been emphasised on several occasions. The attractiveness of technology transfer to a less developed country may serve as a means through which the transferor country can gain some unimpeded access into the transferee country. As most developing countries have an urgent need to possess the best and the latest, Gerwick Jr. and Woolery (1983) suggest that the latest technology may have a major appeal for them. Because host countries are essentially buying technology and managerial competence for their construction facilities, this would appear to be even more so if

training and development of their local workforce is included as part of the package. Technology can only be transferred successfully if there have been government encouragement on both sides, and the agency responsible for administering the project in the host country has implemented the agreed upon requirements effectively. Likewise, the exporting contractor must undertake to fulfil his part of the obligations concomitantly.

Gan (1985), in dealing with the managerial issues relating to international technology transfers, has identified two basic types of technology transfer. While transfer between the various stages of a project can be referred to as Vertical Transfer, Horizontal Transfer, on the other hand, relates to the transfer of technology from one project to another. Horizontal transfer can again be classified under Product Transfer (i.e. the imports of products without any modifications for the local market), Design Transfer (i.e. involving the transfer of design innovations for the purpose of local production) and Capacity Transfer (i.e. involving the transfer of scientific capabilities for the purpose of nurturing a local ability to both develop new technology as well as to modify existing technology). Gan (1985), likewise, suggests that the two main modes of transfer may be distinguishable - Internal Transfer and Arms-length Transfer. While the necessary technological transactions may be contained within the transferor and the transferee in the former approach (for example, government-to-government transfer), the latter approach generally requires an intermediary at their interface (for example, through a contractor). Murphy (1985) similarly notes that technology transfer can be facilitated through various contractual forms, including :

1. Independent contracts for consulting design, construction and equipment supply.
2. Packages assembled by a group of companies functioning as a consortium, and
3. A single firm under an independent turnkey contract.

In so far as the definition of technology is concerned, Beullac (1986) maintains that the material technology (in the form of plant and equipment) as well as its intellectual representations (in the form of patents and licences) must not be excluded. Beullac (1986) continues on to suggest that the transfer of service technologies may be carried out in any one or a combination of the following ways :

1. The indigeneous firm may purchase licences or patents from abroad to set up local production facilities.
2. The indigeneous firm or its government may seek to extend its industrial base by investing in plant and equipment procured from overseas, and
3. An international company which has previously exported to one country may now decide to set up a subsidiary in that country.

Because of the numerous uncertainties which are frequently associated with the international market, Derakhshani (1986) claims that a contingency view of the transfer process would tend to be more beneficial than a categorical perspective which may be unrealistic. Nevertheless, Derakhshani (1986) is also of the opinion

that four factors are basic to the structure of any international transfer of technology. These essentially relate to :

1. The intensity of decision-making and control.
2. The interpersonal relationship in the transfer process.
3. The supplier's initial involvement, and
4. The relationship and the stability thereof between the transferor and the transferee.

The core advantage attainable by a transferor of technology, as Beullac (1986) notes and as mentioned earlier, can only be derived on a continuous basis from investments in research and development. Bartlett and Ghoshal (1987) similarly assert that internationalisation strategies of this nature can be achieved by the creation of new products and technologies at home, followed by their systematic exploitation abroad. Ohmae (1989), however, seems to be less optimistic while expounding the importance of strategic alliances in the global market. Ohmae (1989) claims that the sole possession of a superior technology may not necessarily always guarantee success in the market for the simple reason that, over time, the technology may no longer remain proprietary. In essence, having a superior technology is only important provided the technology does not become obsolete or easily replicated by others.

While the promise of technology transfer may be a strong selling point for the transferor, in reality, this does not seem to reflect the true benefits accruable to the recipient country. Ariffin (1977), in citing the experience of Malaysia in technology transfer ventures, points out that much more needs to be done to ensure that the transferee country receives its share of the bargain. Technology transfer in developing countries, Ariffin (1977) maintains, is more of a myth rather than a reality. Shui On (1987), in reporting the transfer of technology by foreign contractors in Hong Kong, likewise, remains doubtful over whether the locals have indeed been given the opportunity to receive the required exposure necessary for the transfer. While this issue may be debatable, Welch (1985) concedes that to some extent, the marketing process in technology transfer can only be regarded as an exercise in relationship management. A certain degree of apprehension is naturally involved in the process of transferring one's technical know-how to another party. Smith (1986), for example, recognises that future rivals may well be created when the recipient countries themselves mature and grow. Within this vicious cycle, a successful exporter of technology may well be victimised later as a result of its own success. Technology transfer by multinational contractors is therefore more of a threat than a risk to secrecy and confidentiality.

In a major study of technology transfer in the construction industry, Abbott (1985) notes that some international contractors have argued against involvement with technology transfer programmes if such programmes can succeed in producing capable and efficient competitors in the developing world. However, because

developing country governments have increasingly viewed technology transfer as the only possible short cut to achieve economic objectives, these programmes have frequently been insisted upon before contracts are awarded to foreign companies. Such insistence may also take place even though the recipient countries are not always clear about the precise nature of the technology they require. Abbott (1985) observes that the recipient's perception of requirements, the transferor's perception and the actual requirements can easily be three different things. A further complication can, likewise, arise when technological requirement changes with time.

While some international construction companies may have looked upon technology transfer as a concept which encourages the growth of a new generation of foreign competitors from the developing world, there are also companies who viewed the concept as a means of improving their foreign interests and international competitiveness. In this case, Abbott (1985) concludes that the second group of companies have transformed the concept of technology transfer into a strategic business tool for providing medium and long-term financial returns. Nevertheless, Abbott (1985) also observes that the majority of transfer programmes have been provided because of requests from the recipient organisations rather than initiated by the transferor organisation to gain a marketing advantage.

7.4. JOINT VENTURE

The dilemma which prevails in technology transfer programmes may, however, be ameliorated to some extent through joint ventures or consortia and strategic alliances. These, in themselves, may take on several forms, including licensing, franchising, etc. As Welch (1985) has suggested, licensing may be used as a dynamic international marketing tool for gaining initial entry into a foreign market. Hein (1987) has similarly regarded the strategic formation of joint ventures as an instrument for export marketing. For the exporter, a joint venture may serve to enhance the following functions :

1. Research and development.
2. Production.
3. Procurement, and
4. Marketing.

Depending on the types of joint ventures used for the exports of construction services (for examples, a local / foreign joint venture, or a foreign / foreign joint venture), technology transfer may be facilitated and track records consolidated. In addition, Killing (1982) considers a global joint venture to be of relevance in a situation where the reduction of economic, technical and political risks is to be contemplated. Berlew (1984) believes the advantages that can be derived from a joint venture with a well qualified foreign partner can be quite substantial. These include the following benefits :

1. An active participation in growth and income-generating activities.

2. Lower cash outlays required.
3. Preferential treatment given by some developing countries.
4. Easier access to a market and to market information.
5. The demands on a company's managerial resources can be lessened.
6. A tax advantage may be obtainable, and
7. An equity value is created for the parent company which can be realised eventually, if required, by disposing off their equity interests.

The formation of foreign joint ventures as a means of gaining entry into overseas markets are, however, not without its drawbacks. Agreements as to how the joint venture may operate or how the operations are funded may be difficult or impossible to reach if the joint venture partners' business objectives are radically different. The surrender of control over a large investment overseas may similarly pose an additional set of hurdles for the minority partner over the allocation of resources.

Murphy (1985) contends that a foreign / local joint venture would yield immense benefits for the foreign partner as the local partner invariably has a better grasp and knowledge of local operating conditions and the key people involved. This, in itself, can help to boost the tender success rate tremendously. Having achieved the necessary experience of working in the local environment through the joint venture, the foreign contractor may then proceed to set up an office to tender for contracts on his own if this proves to be desirable.

Lucas (1986) has emphasised the collective need for firms with limited resources and track record to joint venture in their search for overseas projects. In this manner, the overall capability of the group can, undoubtedly, be further enhanced. This move appears to be more crucial for the smaller contractors who, on their own, cannot compete against the giants of the industry. It is only by the pooling of their resources through a consortium that each individual contractor can be availed of a collective force to compete on an equal footing with large corporations for international projects. The consortium can again enter into a joint venture with a local partner in the host country. American contractors have been known to enter into such joint ventures with their Chinese counterparts for the construction of hotels in China. Under these arrangements, the American partner owns a certain share of the hotel for a stipulated period of time, after which the Chinese will assume full control of the facility. As Gray, et. al. (1985) have observed, the Chinese are keen to promote joint ventures of this nature because these can maximise foreign investment on terms advantageous to them.

With the advent of globalisation, Ohmae (1989) also correspondingly recognises the need for strategic alliance in the international markets. Under such a situation, Ohmae (1989) notes that the companies today can no longer take a solitary stance in wanting to be the best in everything and in doing everything themselves. It is no longer profitable to compete headlong with one another in the foreign markets when resources can, on the other hand, be combined to maximise returns through

some form of strategic alliances. Each company can complement one another by pooling their resources which the other lacks. While the benefits which can be derived from foreign / local strategic alliance have been clear enough, Ohmae (1989) regrets that the reluctance of so many companies either to experiment or to persevere with them long enough to learn how to operate them, remains. The main hindrance appears to lie in a fear that the alliance may eventually offer potential competitors an easy access to the home market. Even where this hurdle can be surmounted, Killing (1982) argues that there is still the problem of managing the joint venture in both the dominant parent enterprise and shared management ventures. Dominant parent joint ventures occur when a company takes on a local partner solely in response to host government's requirements. In most instances, the local partner would normally have no knowledge of the product or service offerings, has a willingness to be a passive investor, and is not related in any way to the host government. So long as the local partner remains content with this arrangement, the dominant parent can continue to hold a strong position in all negotiations with the host government. In sharp contrast, the shared management approach is crucial in ventures where a continued managerial involvement is required from both partners. This, however, tends to reduce management's autonomy, and both confuses and retards the decision-making process. The appropriate alternative in this instance depends on whether the operational skills of one or both the partners are essential for the success of the joint venture. As Andrews (1983) notes, consideration must therefore be given to defining clearly the responsibilities, obligations and rights of all the parties concerned. The temporary organisations of two or more parties operating as single entities under joint control for prescribed and limited purposes invariably create a risk of dual allegiances among those involved. Andrews (1983) observes that a consortium would not be an effective solution to growth problems unless a compelling culture can be cultivated through the pooling of complementary as opposed to similar skills. Otherwise, the attendant risks may be compounded even further when contracts are carried out by parties from different nationalities, perhaps in yet another country. Although joint ventures may offer opportunities for operations in foreign markets, the additional management effort needed to run these operations has been suggested to take twice as much as a wholly-owned subsidiary. This is because time and attention have to be devoted not only to the existing parent business but also to the venture partner as well as the joint venture itself as a separate company (Leadbeater, 1990).

## 7.5. SUMMARY

Financial engineering, countertrade, technology transfer and joint venture are the major tools used for marketing in international construction business. A wide range of financial provisions could be adopted for international contracting, including documentary credits (Buyer's and Supplier's Credits), factoring and rediscounting facilities, export credit guarantees, bilateral / multilateral tied aid, B.O.O. and B.O.T.

etc. Reasons were given as to why cash-strapped host countries have specified countertrading as the mode for payment. The different types of countertrade arrangements were examined, including Barter, Counter-purchase, Buy-Back, Offset and Switch-trading. The transfer of technology (both material and intellectual transfers), when used as an incentive for foreign clients, can greatly enhance the chances of procuring overseas contracts successfully. Although viable as a business strategy to solicit overseas projects, future competitors from the developing host countries are also trained and nurtured consequently in the process. This could, in turn, serve to increase the future level of competition further in the international market. Joint venturing is another arrangement adopted by companies to gain entry into a foreign market. Apart from providing an arrangement to deal with the local environment using local partners, joint ventures are often resorted to for satisfying local legislation. The managerial responsibilities of joint venture partners must, however, be spelt out clearly if misunderstanding is to be avoided.

REFERENCES


1 Abbott P. G., "Technology Transfer in the Construction Industry : Infrastructure and Industrial Development", The Economist Publications Ltd., 1985.

2 Andrews J., "Construction Project Management in joint venture in developing countries", seminar paper, Agadir, Morocco, November 1983.

3 Arnold W., "Aid For Trade Debate", The CIDB Review, January - March 1986, pp. 83-86.

4 Ariffin K., "The Transfer of Technology - Myth and Reality", Malaysian Management Review, Vol. 12 No. 3, 1977, pp. 24-35.

5 Bartlett C. A. and Ghoshal S., "Managing across Borders : New Strategic Requirements", Sloan Management Review, Summer 1987, pp. 7-17.

6 Berlew F. K., "The joint venture - a way into foreign markets", Harvard Business Review, July - August 1984, pp. 48-51.

7 Beullac C., "Managing The Transfer Of Technology", Malaysian Management Review, Vol. 21 No. 1, April 1986, pp. 31-48.

8 Causilla H., "Complex International Projects : Planning For Success", The CIDB Review, April - June 1988, pp. 19-22.

9 Cho K. R., "Using Countertrade as a Competitive Management Tool", MIR, Vol. 27, 1987, pp. 50-57.

10 Construction Exports Promotion Unit (CEPU), "Financing facilities and techniques for construction operations", Construction Industry Development Board, 1987.

11 Derakhshani S., "Negotiating Transfer of Technology Agreements", Finance and Development, Vol. 23 No. 4, December 1986.

12 Gan C. E., "Managing International Technology Transfers", in A Regional training course in building construction project management, Singapore, 25 March-6 April 1985, pp. 1-8.

13 Gerwick Jr. B. C. and Woolery J. C., "Construction and Engineering Marketing for Major Project Services", John Wiley & Sons, 1983.

14 Golden R. M. and Green D. H., "Mixed Credits and Third World Markets", The CIDB Review, January - March 1986, pp. 80-82.

15 Gould R. N. H., "Construction Financing Effects on Other Contractual Provisions", The CIDB Review, April - June 1986, pp. 75-84.

16 Gray J., etc., "Construction Industry Hunts for New Fields", The CIDB Review, October - December 1985, pp. 63-74.

17 Hein J. F., "Joint Venture as an instrument of export marketing strategy", Report prepared for the China Council for the Promotion of International Trade, ESCAP, International Trade Division, Trade Promotion Centre, 1987.

18 Holland D., "Constructive aid can help win overseas jobs", New Civil Engineer, 20 November 1986, p. 17.

19 Kaikati J. G., "The Reincarnation of Barter Trade as a Marketing Tool", Journal of Marketing, Vol. 40, April 1976, pp. 17-24.

20 Killing J. P., "How to make a global joint venture work", Harvard Business

Review, May - June 1982, pp. 120-127.

21 Lai H. M., "Countertrade - The Form of Trade For The Future", The CIDB Review, January - March 1987, pp. 33-35.

22 Leadbeater C., "Hard work on joint ventures", Financial Times, 22 January 1990, p. 30.

23 Lucas C. L., "International Construction Business Management", McGraw-Hill Book Co., 1986.

24 McDowall A. D., "International aspects of the construction industry", in "Computer Technology in Construction", Institution of Civil Engineers Conference, 25-27 September 1984, Thomas Telford (London), 1984.

25 Murphy K. J., "Macroproject Development in the Third World : An Analysis of Transnational Partnerships", The CIDB Review, July - September 1985, pp. 53-63.

26 Ohmae K., "The Global Logic of Strategic Alliances", Harvard Business Review, March - April 1989, pp. 143-154.

27 O'Neill B., "Japan Aids Overseas Success", The CIDB Review, January - March 1986, pp. 75-79.

28 Parkinson C. N., Rustomji M. K. and Sapre S. A., "The Incredible Japanese", Federal Publications, 1984.

29 Shui On Quarterly, "Overseas Contractors in Hong Kong", March 1987.

30 Smith C., "Competing Through Finance", The CIDB Review, January - March 1986, pp. 71-73.

31 Tan C. C., "Singapore as a countertrade service centre : The role of banks", Occasional Papers Series No. 6, Research Department, The Development Bank of Singapore Ltd., October 1986.

32 Verzariu P., "Countertrade, Barter & Offset : New Strategies for profit in international trade", McGraw-Hill, 1985.

33 Welch L. S., "The International Marketing of Technology : An Interaction Perspective", International Marketing Review, Spring 1985, pp. 41-53

34 Yoffie D. B., "Profiting from countertrade", Harvard Business Review, May - June 1984, pp. 8-16.

CHAPTER EIGHT

MARKETING INFORMATION SYSTEMS (MKIS)

## 8.1. THE NEED FOR AN INFORMATION SYSTEM

Information is a pre-requisite in all commercial activities and can be regarded appropriately as the life-blood within which business interactions unfold. Bartels (1962), in documenting the historical development of marketing research and its evolution, traces the emergence of a concern towards the increasing need for accurate marketing information as well as the growing utilisation of scientific methods in marketing management. Behind the notion of any marketing research exercise is a belief that managerial problems can be solved much more readily by the use of facts. On the domestic scene where companies are as yet uninvolved in international operations, the need for information is just as important for monitoring the international environment and to evaluate the threats, if any, of foreign competition in the domestic market. A business executive's capacity to make sound decisions requires him to seek a reduction in the risks and uncertainties in following a particular course of action and in enhancing the probability of making decisions in the right direction. In so doing, there is an attendant need for the systematic sieving, selection, collation, processing, assessment and communication of the relevant information to the right persons. An ability to put forth sensible and logical assumptions for the purpose of making more accurate planning and forecasting decisions is also of paramount importance. In considering the full potential of new information technology, it is therefore imperative to look at information systems as such from a broader perspective. As both Montgomery and Urban (1970) have recognised,

> "Information systems can be designed to assist managers directly in planning and decision making by combining management science, statistics, computer science, and market data into an integrated decision-information system (Montgomery and Urban, 1970:226)."

The ever-growing complexity and dynamism of today's business world has created an urgent need for one to be well informed of both domestic and overseas developments and happenings so that planning and decision-making can be carried out uneventfully to achieve set objectives.

For the marketing concept to be implemented proficiently, pertinent information is required to both gain a strategic and tactical edge over other competitors. Although information of military precision is not advocated here, the effectiveness of any decision taken would generally increase as the degree of information accuracy increases. Boughton (1985) notes that

> "For many firms, the competitive nature of today's business environment has brought home the realisation that strategic advantage will accrue to the firm doing the best marketing job. Effective marketing requires information. Information is needed that identifies and explains the wants and needs of the

> many new customer segments being formed in today's dynamic marketplace. A sound information base thus becomes the cornerstone upon which competitive strategy is built (Boughton, 1985:10)."

Within the context of construction, it has been accepted that the industry is not only subjected to the fluctuations of the general economy - a characteristic undoubtedly shared by all other economic sectors - but also the effects of it being used as a stop-go regulator by the government for the same economy. The unpredictable nature of the construction industry has therefore, in Turin's (1970) words, caused sensible people to turn to statistics as a source of information to find out about the past, analyse the present and, perhaps, forecast the future. Knowledge is used to formulate business policies within the operating context of which a decision-maker strives to attain optimal utility.

McDonald (1980) has suggested that the information gathered as such can be used fundamentally to develop strategic long-term and tactical short-term decisions and, occasionally, as marketing research information for one-off marketing problems. The analysis of domestic markets alone already present formidable problems without having to consider how similar procedures may be applied in the international markets. Market analyses for both the domestic and international markets are predominately concerned with two main tasks :

1. To evaluate the volumes and potentials of existing markets, and
2. To estimate the volumes and potentials of future markets.

It would seem that the construction of an information system for the purpose of marketing research poses relatively less difficulties domestically than internationally. Moyer (1968), for example, believes that the task of marketing research in the international arena introduces two additional handicaps when compared with its domestic counterpart. Firstly, the research for any one particular industrial sector would now need to cover a greater number of diverse markets, encapsulating a larger geographical spread, each area with its own peculiar and unique features which make generalisation all the more difficult. Secondly, the research operations would now seem to encounter a paucity of statistical sources whose reliability has always remained uncertain, especially for the less developed countries.

The problems in developing an information system are not confined to the above alone. The time period between making known the need for a specific piece of information through to its collection, processing, analysis and eventual presentation can be quite substantial and in the process, may flow through many channels, both within and outside the organisation concerned. As a result, Albaum (1968) suggests that

> "Somewhere along the communication channel, much information gets misplaced, lost, delayed or distorted. The result is that some information never reaches decision-makers who could put it to good use, reaches them too late to be useful, or arrive in a form that makes it useless (Albaum, 1968:240)."

This would seem to be an inevitable outcome considering that such information is frequently drawn from large and complex marketing systems. Lazer and Kelly (1962) note that these are large not only in the dollar amount, volume of goods handled, number of people and quantity of components involved, but are just as sophisticated in the number and types of elements, and possible variations within each element. Reliance, therefore, needs to be placed on the multiple sources of communications as well as on both the multiple forecasts and feedback loops. Managing marketing systems and their corresponding information systems is therefore a difficult and demanding task. Wee (1987) similarly considers the problems in deriving the information which is relevant for an exporter to confidently identify both the product and market types. Although trade missions can be organised at the national level for the purpose of fact finding and information gathering, Wee (1987) argues that these are likely to be expensive and ad hoc rather than regular and systematic. Besides the difficulties in organising and co-ordinating a trade mission, not every interested exporter is given the opportunity to partake in one. It can further be argued that the relatively short period of time spent in any one particular country by a mission is unlikely to generate the type of information commensurate with the costs expended. Therefore, to be realistic, Wee (1987) reasons that the exporting firm would need to explore alternative sources of information, especially those from existing published sources. Otherwise, the collation of information for identifying export opportunities is likely to be both problematic and expensive. The information system should preferably be tailor-made to suit the demands of the organisation in need of such a system although a less exacting requirement could perhap make use of one of the appropriate packaged data bases now commonly available in the market. In the case of international construction markets, the decision to be made for the contracting firm would seem to depend on the following circumstances :

1. Whether the firm is a first-timer to the international scene.
2. Whether the first-timer firm is contemplating diversification to only one overseas market.
3. Whether the first-timer firm is contemplating diversifications to more than one overseas market.
4. Whether the firm, not a first-timer, is considering expansion to only one additional overseas market.
5. Whether the firm, not a first-timer, is considering expansion to more than one overseas market, and
6. Whether the firm intends to pursue new or existing service and / or product lines in foreign markets regardless of its status as a newcomer or otherwise to the international scene.

All these questions would need to be explored before the specifications of an information system can be determined : what should be presented, how it should be

presented, and to whom. It is therefore necessary to make reference to a particular firm before the contents of an information system can be appropriately established. An alternative approach, however, would be to develop a general information system for a specific subject which will be of relevance to all firms. The latter would, as such, appear to be less restrictive than the former approach.

The sophistication of an information system, as Cox and Good (1967) have acknowledged, can only be developed after a review of both the company's needs and the associated costs likely to be incurred in meeting them. Information, especially those which entails a good amount of time and expenses for its compilation, is not as readily nor cheaply available as one would like it to be. Valuable and helpful information does not usually come by freely in the format required for decision-making. The first step in this direction would normally be to look at whether the information required is already available from within the firm, as is the case with most accounting cost figures, or only from outside the firm, as is the case with information concerning the market place. Once this has been established, the second step would be to estimate the time and cost likely to be expended for its collection and processing if the information is available. Where time is of the essence, it would also be necessary to find out whether the information can be made available before the decision is taken. There is a need to maintain a balance between the time and expenses spent in collecting the information as against the benefits which can be derived therefrom. Hague (1969) recognises that

> "It is never worth spending more to collect information than that information will be worth when it has been collected. Obviously, this is a truism to which no one can object. It is impossible to be sure whether one is breaking the rule or not. It will always be hard to be sure, in advance, just what it is going to cost to collect a particular piece of information. It will be even harder to be sure exactly what use that information will be when it has been collected. But the question must be continuously asked and must be honestly answered (Hague, 1969:299-300)."

Under this influence, Hague (1984) goes on to suggest three rules-of-thumb for business forecasting and decision-making within the framework of an "Impact-Probability Matrix" as depicted in Figure 8.1. Hague (1984) reasons that firstly, where the time element is concerned, one should adopt a time horizon which penetrates as far into the future as needed by the decision for which the information will be utilised and no further. Secondly, in the context of the "Impact-Probability Matrix", effort should be directed primarily to the "High Impact : High Probaility" segment, and secondarily to the "High Impact : Low Probabilty" segment. This would then seek to optimise the returns commensurate with the efforts put in. Lastly, Hague (1984) suggests that adequate contingency plans should be formulated as back-ups in the event that the forecasts based on the information collated turned out to be inaccurate or unreliable.

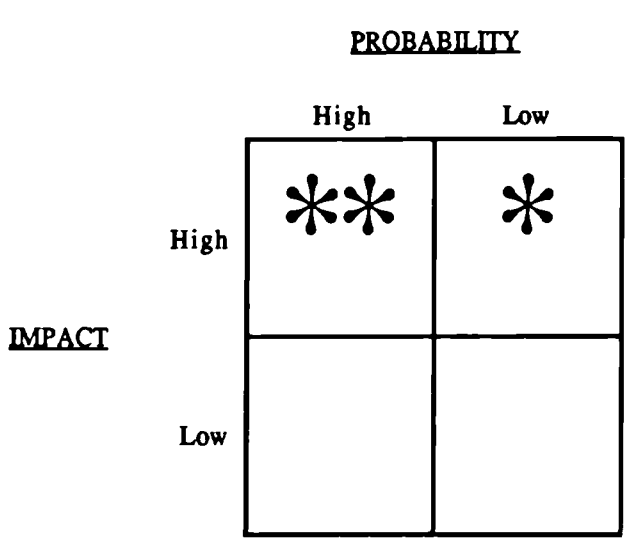



FIGURE 8.1. THE IMPACT-PROBABILITY MATRIX

(Source : D. C. Hague, "Managing in the macroeconomic environment", in J. F. Pickering and T. A. J. Cockerill (Eds.), "The economic management of the firm", Philip Allan Publishers, 1984, p. 253.)

A forecast of the business environment is crucial to management because of the need to fit one's own organisation's past experiences and future plans into a general framework which can help to draw conclusions about the future of one's service or product offerings. This would require some information about the operating environment which, at the moment, appears to be best served by statistical economic indicators. Unfortunately, these predominately tend to reflect the past. Such a pronouncement could well have influenced and led Whitelaw (1969) to believe that

> "The past and present should be of little interest to the marketing man - he cannot do anything about them. He can only operate in the future - be it an hour or a year ahead (Whitelaw, 1969:94)."

If one will to attest to Whitelaw's (1969) belief, then this would be tantamount to a rejection of the contributions past and present data can have in forecasting the future. One could argue that under the obvious situations where there is a clear lack of information direct from the future, how else can one guage the future except from past and present data. After all, historical cost accounting and econometric modelling, etc., are fundamentally rooted on such an understanding. While it may be argued that one cannot do anything about the past, a small amount of knowledge from the past and present could go a long way in providing the awareness and the background upon which planning and decision-making can be based. An Open University's publication (1975) suggests that

> "National accounts provide important information for businessmen, historians, economists and politicians - information on how certain industries or industrial sectors have grown or declined over time ... and what implications, if any, this may have for economic policy. The businessman may be interested to see how ... this may be important for his company (Open University, 1975:11-12)."

The basic reasons as to why an information system is desirable have been considered. First and foremost, there is a need to reduce the risks and uncertainties associated with commercial decision-making. Given that information provides the backdrop where decisions can be taken much more confidently, the need for an information system, regardless of whether this has been instituted on a formal or informal basis, remains critical. It has been suggested that this would in turn contribute to the profitable formulation of strategic and tactical manoeuvres. The construction of an information system raises two pertinent questions relating to data availabilty and data reliability. Having established its availabilty for a specified purpose, one can then proceed to consider its accuracy and completeness. A fair amount of leeway is to be expected here because the empirical studies undertaken for this thesis have revealed that both the raw and processed information is neither complete nor perfectly accurate. What would seem to be relevant here relates rather to the confidence level one would be willing to accept in relation to a decision based on the information procured.

## 8.2. CONTRIBUTIONS FROM MARKETING RESEARCH

The development of an information system to determine where the potential markets lie would entail the services of marketing research activities. Information relating to both the domestic and foreign markets is not normally available in the form desired by a firm contemplating entry, diversification or expansion. As would be expected, raw data is frequently scattered among various sources and a coherent effort is therefore needed to seek, sort out and extract those considered relevant. The physical collection of information is not the main obstacle for a market researcher if there are reasonable facilities within any one geographical setting where such information has been systematically documented and stored. The difficulty lies in identifying the type of information one requires for the task considered. It would be unprofitable to search out and maintain a voluminous collection of what, at first sight, seems to be relevant information when this may not actually be so at a later stage. Much time and cost would be incurred if every conceivable piece of information that comes by is directed into a personalised collection without homing in on the real crux of the problem. Due discretion needs to be exercised in order to distinguish information that has a direct bearing on the research objective as opposed to one which only appears to be so. The market researcher has to be selective and to determine right at the very beginning what the real marketing problem is, what information is required to overcome this problem and where and in what form can such information be obtained. An appropriately conceived strategic research design is necessary here before the fieldwork can even commence. In the event that direct information is known to be non-existent, consideration has then to be given to alternative surrogate measures or indicators. The ability to peruse through and select the exact information required and at the right dosage from among the whole gamut of data available would appear to constitute an art rather than a science. Nonetheless,

there remains some controversy over this issue because marketing research requires inputs from other scientific disciplines as well. As Kracmar (1971) observes,

> "What can be claimed, however, is that the techniques of marketing research are based on scientific methods of collecting, analysing, and interpreting facts. These methods are borrowed from various fields, such as mathematics, statistics, psychology, sociology, history and engineering. Other writers, however, maintain that marketing research has become a science by virtue of such borrowing (Kracmar, 1971:14)."

The importance of marketing research for developing information systems is all too obvious. McDonald (1980) notes that marketing research activities only provide a portion of the data required for decision-making by management. This should be seen as one of the inputs to an information system which culminates eventually into outputs of evaluated information or what have commonly been known as "intelligence". An official definition offered by the American Marketing Association (1960) has defined marketing research succinctly as

> "the systematic gathering, recording, and analysing of data about problems relating to the marketing of goods and services (American Marketing Association, 1960:16-17)."

Marketing research therefore focuses on particular problems and as such, has a definite beginning, mid-point and ending. This would seem to suggest a system approach, a term which had originated from its association with military research projects during World War II. A system may be defined here as an assembly of elements interdependently linked together by some form of both regular and irregular interactions. A system perspective would therefore regard a whole as at least equal to the sum of its parts. In a classical attempt to introduce the system concept into marketing, Adler (1967) has proposed that

> "the system approach attempts to apply the 'scientific method' to complex marketing problems studied as a whole; it seeks to discipline marketing (Adler, 1967:112)."

Adler (1967) goes on to suggest that the ultimate in the system concept would be reached with the building of mathematical models for the entire purchasing and marketing processes. Although this appears to be an entirely wholesome application, it would nevertheless tend to be worrisome because of the numerous elements involved and because of what Adler (1967) had acknowledged as "the mind boggling complexity of their interactions" considered as a whole.

Viewed as such, marketing research would by itself constitutes a subsystem which focuses on specific areas. As a tool, marketing research can assist in seeking out markets which offer the best potentials as well as indicate the corresponding marketing techniques to use. In the context of international construction, marketing research would be able to provide the background information for contracting firms

with respect to the following questions :

1. Which countries appear to be suitable for the export of construction services and products ?
2. What is the potential size of a particular country's construction volume in value added terms ?
3. What is the rate of growth for this volume over time ?
4. What is the share of a country's value added by construction expressed as a percentage of the global value added by construction ?
5. What is the rate of growth for this share over time ?
6. What are the regional volumes and their shares expressed as percentages over the global value added by construction ? What are their rates of growth over time ?
7. What volume of work can a firm expects to sell in any one construction market overseas ?
8. What are the changes required for the service and product offerings to both facilitate entry and enhance sales in a particular foreign construction market ?
9. What are the levels of competition, socio-economic and political factors likely to be encountered in any one construction market overseas ?
10. How should estimating and pricing be carried out for the purpose of submitting bids for overseas construction tenders ?
11. How much will it cost to secure a successful tender ?
12. In what ways can a firm's construction services and products be best marketed overseas ?

As a result of the uncertainties one encounters in the diverse and complex international environment, marketing research can help to alleviate the costly blunders of unsuitable entry strategies, in reducing the possibility of missed opportunities, as well as in determining how far a firm can manage to co-ordinate pan-national operations to take advantage of the marketing synergies that may arise from a global approach. In their consideration of international marketing, Douglas and Craig (1983) have stressed the paramount importance of marketing research because

> "Decisions about which countries to enter, in what order, what modes of entry or operation to use in these countries, which products or product lines to transfer across national boundaries, how to schedule market entry, and whether to pursue similar target segments in each country have to be made also. These are decisions that should be made relative to a number of countries simultaneously, rather than on a country-by-country basis. Otherwise profit will be maximized by local national profit centres, but not necessarily at a global level (Douglas and Craig, 1983:14)."

Considering the home markets alone, companies are already prone to making costly judgmental mistakes. Marketing research therefore seeks to provide companies with

the requisite information to at least reduce such errors. If marketing research can be that significant in the domestic markets, its contribution to international markets would be even more vital where there is now a crucial need to vet through all the foreign potential markets before any decision is made to enter into them. However, marketing research at the international level is not without its drawbacks. Many factors would now need to be considered and for some, virtually no data has ever existed nor recorded. Others will pose even greater problems in management and control. Rodger (1965), for instance, acknowledges that as companies grow in size and expand their operations into overseas markets, serious problems in communications and information flows can and do frequently arise. In particular, the organisation of marketing research and the manner in which its findings are disseminated into the planning and decision-making processes can create extraordinary problems. The obstacles faced in international marketing research can be complex and hampered considerably by a good number of conceptual, methodological and organisational problems. The more pressing areas have been dealt with by Douglas and Craig (1983). These relate essentially to :

1. The difficulty in formulating an appropriate research design because of the wide array of linguistic and cultural variables which need to be accounted for in different countries.
2. The apparent lack of secondary data relating to foreign markets and the service and product offerings in these markets.
3. The excessive costs likely to be incurred for collecting primary data, particularly from the less developed countries.
4. The hurdles likely to be faced in organising and co-ordinating simultaneous research and data collection in different countries.
5. Even when these hurdles can be overcome, there remains the problem of compatibility - i.e. whether the results of any comparative analysis based on the data collected will be valid on equivalence grounds.
6. The effects international marketing decisions may have on other management functions as the interdependency between their links may result in a substantial time-lag before their actual implementation.
7. The enormity of many international marketing and investment decisions in pecuniary terms, and
8. The confrontation with a plethora of data from officially published sources is likely to be confounding. The market researcher is therefore required to be more selective in refining and extrapolating data requirements.

As a result of these principal obstacles, one is not tempted to place international marketing research in a favourable light. The high costs and time involved may not be justifiable if the research design proved to be abortive in fulfilling the set objectives altogether. The aim would therefore be to strike a balance between the efforts spent in marketing research and the losses likely to be incurred for not doing

so. As Exportasia (1985) advises,

> "before deciding to spend a large sum of money on market research, a company should estimate the cost of making a mistake. If a mistake would cost less than the cost of the research, then it might be worth the risk. On the other hand, it would be foolish to spend millions of dollars ... in trying to penetrate a new market without investing a few thousand dollars in market research to discover whether the product can be sold at a high enough price and in a satisfactory volume (Exportasia, 1985:35)."

The setbacks one is likely to face in marketing research do not stop here. Adler (1967), for example, had canvassed the view that marketing research is fast becoming antiquated because it focuses on the dreary past without shedding much light on the present nor forecasts about the future. Viewed from a systemic angle, Adler (1967) went on to add that research of this nature has also tended to be specific when attention is concentrated on studying small and fragmented segments of a marketing problem rather than treating the problem as an entire whole. The controversy over the past, present and future arose because of the misunderstanding over what marketing research can and cannot do. The attractive results one hopes to obtain in return for the time and cost commitments in marketing research appear to have led to an unrealistic expectation. This does not mean that the forecasts and such like are completely foolproof. Far from having the ability to produce absolute predictions, only surrogate indicators are generated in the process. Exportasia (1985) recognises that this is not a crystal ball gazing procedure and that the

> "market researchers are not prophets. They cannot see into the future. All they can do is examine what is happening at present and what has happened in the past and from these facts arrive at reasonable estimates about what is likely to happen in the future (Exportasia, 1985:36)."

The end product of a marketing research exercise needs not necessarily be a complex or complicated output. What would seem to be the central core of this exercise does not lie in one's ability to produce a sophisticated model or a comprehensive marketing information system but rather the ability to have a logical train of thoughts directed towards solving the problem and in providing the necessary source materials to both expedite and optimize decision-making. Kracmar (1971), for instance, stresses that marketing research is nothing more than the systematic uncovering and orderly presentation of marketing facts, and that these are normally simple facts. In evaluating the types and availability of skills required for marketing research, Kracmar (1971) had proceeded to examine thirty marketing research studies purchased from top-notch management consultants and marketing research agencies in both Europe and the United States for the period between 1964 to 1968. The results of this study ascertained that nothing more than basic arithmetic, algebra and elementary statistics were used to draw conclusions. As Kracmar (1971) points out, the level of numeracy required for marketing research needs not be

unduly complicated. In any case, the key role of marketing research is to produce facts and not opinions about the market. Armed with these facts, those responsible for marketing decisions can then go about the task of drawing conclusions as to what the potential markets are or where their particular strengths and weaknesses lie. Hague (1969), likewise, warns of the pitfalls one is likely to encounter if these facts are not investigated further as to their frequencies of occurrence. It would appear obvious, Hague (1969) argues, that

> "no sensible marketing man will take a major decision in the light of information about a single period of time, whether it be a month or a quarter. It will be necessary to collect information about the *trend* of market (Hague, 1969:296)."

As such, marketing research in the context of international construction would not only encompass the collection of appropriate information for a good number of years, but also, where possible, the application of statistical methods for trend analysis. The final results, in the light of each individual closeness of fit, would provide some insights into the size of each country's construction market, their rates of growth, the share of each country's construction market in relation to the global construction volume, as well as their rates of growth in percentage share terms over a period of time.

8.3. WHAT A MARKETING INFORMATION SYSTEM (MKIS) IS ?

The eventual usefulness of marketing research activities lies in their model-building capacities whose scope can either be conceptual or quantitative or both. As noted earlier, marketing research has been accused of all the undesirable traits in vogue in a microscopic approach which can be both overly specific and fragmented in nature. The contribution from a single marketing research programme would therefore constitute one among several facets of the required marketing spectrum. This has, however, been argued earlier to be an inevitable outcome since, taken as a whole, the entire information system may prove to be unwieldy because of the need to integrate all marketing information from sources both within and outside the organisation. A comprehensive information system would frequently require inputs from more than one set of marketing research activities. Apart from the MKIS which can now be derived, there are also implications for the system concept to both co-ordinate and integrate the inputs from various information sources. This would now serve to expedite not only the decision-making process but also provide the necessary feedback for management. In exhorting the application of system theory for integrating marketing activities, Adler (1967) conceptualises that

> "as the various subsystems of the overall system are linked quantitatively, so that the effect of modifications in one element can be detected in other elements, and as the influences of competitive moves on each element are analysed numerically, then the total scheme becomes truly sophisticated (Adler, 1967:114)."

To utilise the system concept would therefore require a knowledge of the elements involved and the order in which they are expected to occur. Adler (1967), the first notable proponent of the system theory as applied to marketing, suggests that the concept can bring about considerable advantages, not the least of which are the followings :

1. It provides a methodological orientation towards problem-solving and a broad framework within which all aspects of a problem can be examined.
2. The co-ordination of all relevant marketing tools deployed can now be undertaken within the broad frame of reference established.
3. This can in turn lead to an early warning mechanism where potential problems are recognisable quickly enough through an understanding of the interrelationships between the various operating subsystems.
4. As a result, this can lead to greater efficiency and economy in organising marketing activities.
5. The proficiency therein provides the means through which results can be verified quantitatively, and
6. Lastly, a clear understanding of how the various elements within the system interact would tend to stimulate thoughts easier in the innovative direction.

Before proceeding to the MKIS proper, it would be appropriate here to consider further what a system and its components are. Bellenger and Greenberg (1978) suggest that the word "system" denotes a meaning of order, a plan or a method of arrangement, and that a system comprises of a structure formed by many diverse parts within an on-going process and all working together towards common objectives. Applying the systemic approach to management information, Higgins (1976) recognises a management information system (MIS) as an amalgam of subsystems which provides every managers in an organisation with the information necessary for them to make decisions, plan and control the activities within their specific spheres of responsibilities. Montgomery and Weinberg (1979), in their reference to strategic intelligence systems, rightfully argue that the quality of strategic planning depends to a large extent on the quality of the information inputs. Likewise, information systems should be looked upon as a means to an end to service decision-making and for pursuing pre-planned profitable results. Taking the MIS as a whole, one would therefore regard a MKIS as a subsystem with its own contributions to make towards the marketing management functions of an organisation. A MIS, considered singularly, would then consist of several information subsystems from the various disciplines drawn from finance, production, personnel, marketing, etc. It would not be inappropriate to suggest that within an organisational MIS, one or more MKIS could well possibly exist side by side with information systems developed from the other disciplines. McDonald (1980), for that matter, had addressed a MKIS as

> "a subsytem of a total management information system, and will itself consists of further subsystems, each serving a particular marketing function (McDonald, 1980:30)."

From a taxonomical perspective, Kotler (1980), for instance, views a MKIS as a link between the marketing environment and the marketing management function. Along this linkage continuum which leads to decision-making lies a further range of both external and internal operating data, strategic intelligence systems, marketing research and marketing model building facilities.

Several other commentators have also offered their own versions of what a MKIS entails. Amstutz (1969) basically sees a MKIS as a system which provides management with the information relating to, firstly, the current or conditional future states of the marketing environment, and secondly, the market place responses to both the company's and its competitors' actions. Boone and Kurtz (1971) similarly define a MKIS as a

> "designed set of procedures and methods for generating an orderly flow of pertinent information for use in marketing decisions, providing management with the current or conditional future states of his market and also provides indications of market responses to company actions as well as the actions of competitors (Boone and Kurtz, 1971:163)."

Figure 8.2, as such, stems from an interpretation of what have so far been expounded. Although the MKIS has not been expanded to show the different subsystems which may have existed, Figure 8.2 nonetheless depicts the flow logic which serves to bridge the gap between the environment and the decision-maker. Depending on the firm's requirements, there would also be a feedback of the responses into either the MKIS or the marketing research process.

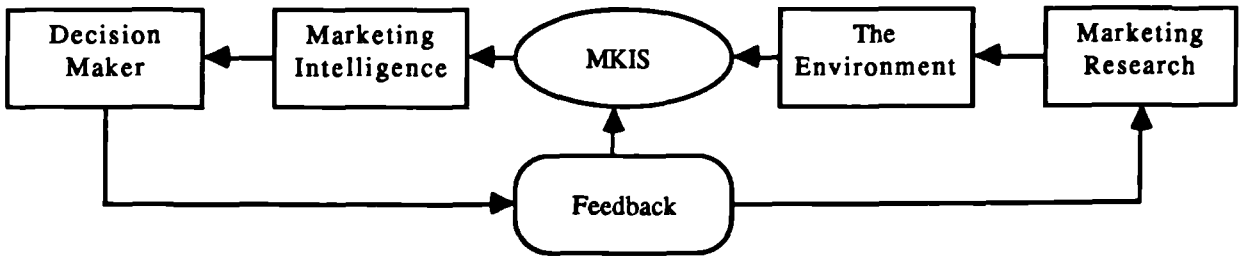



FIGURE 8.2. A MKIS BRIDGE BETWEEN THE ENVIRONMENT AND THE DECISION-MAKER

By far, the most widely adopted explanation of a MKIS appears to be that offered by Brien and Stafford (1968), one which McLeod (1985) has identified in a review as the most outstanding definition which enjoys widespread quotation. Brien and Stafford (1968) define a MKIS as

> "a structured, interacting complex of persons, machines and procedures designed to generate an orderly flow of pertinent information, collected from

both intra and extra firm sources for use as the basis for decision making in specified responsibility areas for marketing management (Brien and Stafford, 1968:12)."

This definition appears to be revolutionary because of its separation from the traditional notion which presupposes that a MKIS is merely another synonymous term for marketing research. It also creates an understanding that the sources of marketing information can come from both within and outside a firm's organisation. Cox and Good (1967), in defining a MKIS as a systematic set of procedures and methods for the collection, analysis and presentation of information for use in making marketing decisions on a regular and planned basis, went a step further to suggest that a MKIS consists of two major components - support systems and operating systems, of which the latter is again subdivided into the three areas of control systems, planning systems and research systems. Figure 8.3 is an adaptation of both Cox's and Good's (1967) propositions which consist of three levels within one broad informational framework. A revamp of any MKIS for rationalization or upgrading purposes would therefore need to take into consideration the various operating systems therein.

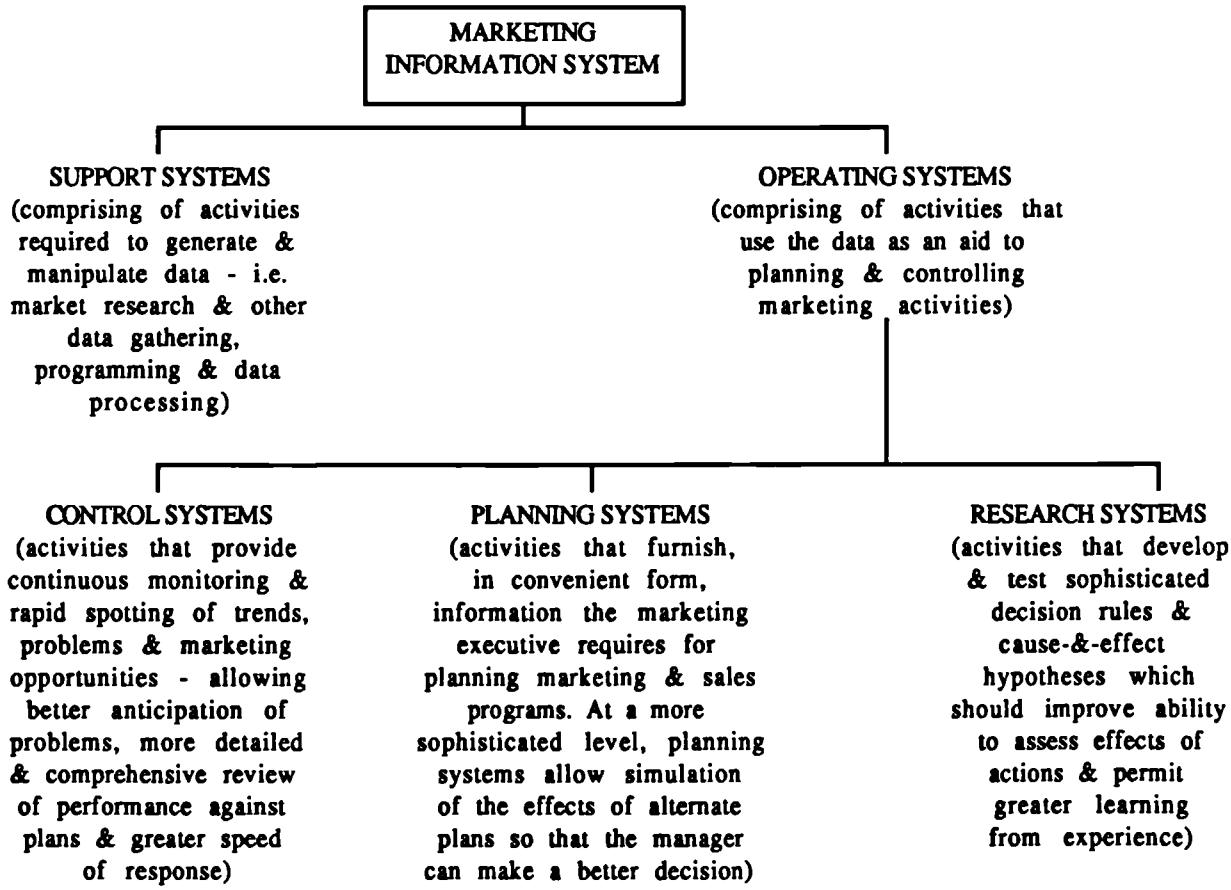



FIGURE 8.3. MAJOR COMPONENTS OF A MKIS

(Adapted from : D. F. Cox and R. E. Good, "How to Build a Marketing Information System", Harvard Business Review, May - June 1967, pp. 145-154).

From yet another perspective, Graf (1979) had categorized organisational

information systems into a number of practical levels consisting of :

1. Data storage and retrieval systems.
2. Systems which monitor and check progress, and
3. "Expert systems" which are designed to provide intelligent answers to "what if" questions.

Along similar lines, Montgomery's and Urban's (1970) version of a MKIS model yields a structural system composed of both the internal and external components. While the latter comprises of two external elements made up of :

1. the information user, and
2. the environment,

the four major elements which go to make up the internal component consist of :

1. a data bank.
2. a measurement - statistics bank.
3. a model bank, and
4. a display unit functioning as the main communication link between the user and the information system.

The data bank, as such, provides the necessary storage and retrieval facilities. These facilities would have the capabilities to both transform and manipulate the data into a processed form required by the user for decision-making. Other than data which may be transmitted directly to the user, most other data would need to be analysed by various mathematical and statistical means via the measurement-statistics bank where complex methods of computations such as regressional and cluster analyses, multidimensional scaling, etc., may be carried out suitably. Provisions may also be made here for the assessment of qualitative marketing data. The measurement-statistics bank would then in turn interact with the model bank to provide a range of marketing models with varying degree of sophistication appropriate for the marketing problems under consideration.

Having covered the marketing research process and the MKIS, it would be timely here to examine the differences which prevail between them. Again, a systemic approach would appear to be helpful in this direction as there do not seem to be much difficulty in appreciating their respective roles when viewed from this angle. McLeod (1985) has been instrumental in using the "flash bulb / candle" analogy to point out that marketing research is essentially part of the MKIS and that

> "Marketing research is a 'flash bulb' activity in so much as it provides an intense but short-lived insight into particular areas of marketing concern whereas the 'candle' of the MKIS provides less, but continuous illumination (McLeod, 1985:9)."

This explanation would place marketing research in the same light regardless of whether it is considered within the context of domestic or international marketing. Obviously, marketing research activities directed towards foreign markets would ineluctably encapsulate a wider scope of coverage. Investigations may now need to

seek an elucidation of countries which offer the most attractive opportunities for entry and expansion, or of strategies which may be standardized across national boundaries or adapted to suit local market conditions. The compatibility notion could, as a result, be invoked for interpreting findings, integration and co-ordination of strategic decisions across countries. This may again be performed in two ways. In the sequential approach, marketing research activities may first be concentrated in one or more countries before extending to other countries or markets. This would appear to generate lesser problems in co-ordination compared to a simultaneous approach where all conceivable countries are investigated at the same time. To carry this point through, Douglas and Craig (1983) have defined international marketing research

> "as research conducted to aid in making decisions in more than one country (Douglas and Craig, 1983:preface p. x)."

In view of the diversity one expects to find in an international atmosphere, the system approach would seem to be cogenial here in resolving research obstacles. Turning to Adler's (1967) earlier marketing profiles from a systemic perspective, there appears to be an eventual evolution of a marketing intelligence system tailored to meet the needs of the users. The interactive mechanism within the system would then function as a nerve centre of the marketing operations which provides the fundamental inputs for an international MKIS. Having ascertained the level of sophistication required, the developmental stages leading to a global MKIS can be anticipated. The usefulness one can expect to derive from this information system is immense, particularly for firms actively involved with overseas operations. Douglas and Craig (1983) have suggested four major types of decision situations where it can be applied gainfully; firstly, in assessing the international market expansion and entry opportunities; secondly, in screening the market performances of a company's activities in different countries; thirdly, in monitoring and anticipating environmental changes; and lastly, in providing the feedback as to how marketing strategies may be integrated across national boundaries. The completeness of an international MKIS, in the absence of protectionist policies imposed by individual sovereignty, would suggest a tendency to reduce national boundaries to state boundaries, and countries into states, as in the Federal States of America where contracting firms may move freely within and between states.

The individuality of each firm, as emphasized earlier, would call for a MKIS customized to suit its requirements. Although there are standardized data based MKIS in the market which are packaged to cater to the general needs of firms, these are unlikely to furnish the required information at a level of detail desired by a firm. This arises because expectations are likely to differ as a result of experiences drawn from different backgrounds as well as the tolerances allowed for by existing corporate resources. In relating an international MKIS to the needs of a corporation would require one to consider the system design in the light of what a firm's current

standing is in terms of overseas operations. Essentially, this would mean the setting up of different terms of reference for firms which are already actively involved in foreign operations as opposed to those which have not but are contemplating doing so. For firms in the first category, the issue lies not so much in selecting countries which offer the best potentials but rather in determining how their resources may be allocated more effectively among the countries involved. This assimilates an emphasis not only on profitable investments but also divestments from areas which no longer provide the rates of return commensurate with the risks and uncertainties a firm is expected to underwrite in the process. The need to devise a MKIS within the context of what a firm requires and what its operating facilities can possibly provide, and the integration of marketing information from sources both within and outside a firm is clearly essential. The depth of analysis and the types of decisions fundamentally dictate the nature of the data required. Depending on whether the decisions are long-term strategic or short-term tactical ones, their informational specifications may vary significantly. The formulation of strategic decisions for international marketing, as such, tends to seek long-range perspectives based on accumulated management experience and reliance on secondary data. In contrast, tactical decisions tend to cover a relatively shorter time span and are convened predominately on the basis of primary data collected from custom-made research programs. In their expositions of strategic, as opposed to tactical, intelligence systems, Montgomery and Weinberg (1979) have classified the outputs from a MKIS into defensive, passive and offensive orientations. While defensive intelligence takes the form of measures implemented to avoid surprises, offensive intelligence provides the source information towards identifying opportunities. In part, these are complemented by passive intelligence which offers a datum against which evaluation may be made objectively.

The wide array of component parts which goes to make up a MKIS suggests that problems do exist within a management information system as a result of the "cause-and-effect" phenomenon. While the system concept may provide an explanation as to why some leeway needs to be allowed for, a strict conformance to the systemic approach is unlikely to provide any practical solution here. There appears to be two dilemmas. Firstly, the adoption of this concept would seem to provide a framework within which causality may be investigated. Yet this approach may prove to be unrealistic in view of the resource limitations and constraints encountered in setting up a complete system. Even where this may be accomplished satisfactorily, the component parts therein may be so complex as to create a mental block which makes it abhorrent for practical applications. This, coupled with the dynamism of the operating environment, may give rise to yet other problems in building up the system, let alone utilising it. Secondly, if this approach is not followed faithfully, critics may argue that short of having a complete information system, the outputs therefrom may be liable to dismissal simply because it does not

portray the real-life situation well enough and hence undermine the validity of what that system, considered in totality, may profess to provide. The choice is rather clear here. A balance needs to be struck between having :

1. an exhaustive and sophisticated system, if one can possibly be modelled, with the capabilities to generate information to a high degree of accuracy but without the attendant complications as to make it impracticable for use within the context of resource limitations and constraints; or
2. a partially complete system catering to well-defined needs with the same level of reliability but avoiding the complexities one would normally find in a complete system.

An ecological analogy would again be appropriate here to demonstrate that systems and subsystems alike, as in organisms and micro-organisms, are rarely concise and steady. The tendency for an information system to shift, grow or contract is dependent upon numerous external and internal variables, all of which already constitute complex subject-matters in themselves. This can be illustrated using construction as an example. The process of concreting, as Abdun-Nur (1970) has maintained, can well be regarded as one among innumerable activities found within most construction projects. To systematize every conceivable activities in the form of information systems within the broad framework of construction projects may well be undesirable considering the mental strain one is subjected to in following this course of action. Even when an entire construction process can be systematized, this is unlikely to be of much use for any other building sites because of the uniqueness of each individual project. Thus, while it may be argued that the intellectual efforts expended in setting up a complete system may be admirable, the commercial value of such an exercise is likely to be questionable. In short, while systems may be helpful in explaining interrelationships and causalities, their applications appear to be laced with insurmountable obstacles leading to yet further confusion. The noticeable absence of any significant system within the construction discipline seems to indicate a tacit recognition by the industry that pursuits along this line are unlikely to be rewarding if carried to the extremes. As Schumacher (1974) had pointed out rightfully, at times, small can be beautiful. It would not be unreasonable to concede that the task of mobilising a MKIS is a function of managerial ability. Cox and Good (1967) have lent support to this proposition by noting that

> "Information quality can be upgraded much more rapidly than management quality. It is easy to throw the management system out of balance by installing a sophisticated (Marketing Information System), but there seems to be little point in doing so. A more positive approach is to develop a master plan for improving the system, but make the improvements gradually - say, over several years (Cox and Good, 1967:152)."

McLeod (1985) has provided some clues as to how this may be implemented within a taxonomy of systems. McLeod (1985) suggests that most information systems consist of

a continuum with Electronic Data Processing (EDP) at one end and Decision Support Systems (DSS) at the other end of the spectrum. Their terms of reference lie in the degree of sophistication and its associated decision-making capacity, as opposed to its information analysis and retrieval capability. In providing a heuristic model within which management adaptability may be strengthened, McLeod (1985) goes on to suggest that

> "Essentially, EDP is a basic data processing function with no common data base. Next comes an integrated data processing system with a common data base, then Management Systems (MIS) and finally DSS (McLeod, 1985:8)."

The emphasis seems to be derived from DSS which are looked upon as integrated information systems consisting of the decision-maker, decision models and data base to support decision-making. In the direction detailed above, management's ability may then be boosted by using DSS as a planning tool.

## 8.4. SECONDARY SOURCES OF INFORMATION

Having examined marketing research and the component parts which go to make up an information system, attention is now turned to the sources of information required by a MKIS. To reiterate what Montgomery and Urban (1970) have suggested earlier, apart from the communication facilities, the major components of a MKIS consist of :

1. the data bank set up to store and retrieve historical information.
2. the measurement-statistical bank used for reducing and analysing raw data, and
3. the model bank which seeks to provide formal decision-making models appropriate for the marketing management tasks.

All things considered, this requires inputs of both primary and secondary data. The types and depth of information required would, however, depend on the circumstances of each case. Douglas and Craig (1983), for instance, have tabled a view that secondary data sources tend to be more important than primary data sources in so far as international marketing research is concerned. This is because secondary data have the capacities to :

1. identify and select countries or markets that merit further in-depth investigations,
2. estimate the demand potential emanating from a country or groups of countries, and
3. screen, monitor and anticipate environmental changes.

Primary sources of data would come in handy only after the countries have been scanned and a decision made to investigate specific localities in greater details. In any case, the collection of primary data may not always be necessary if additional secondary data can suffice as alternatives. Secondary data sources thus provide a significant contribution to the initial assessment of marketing opportunities and in lining up key areas for further in-depth examinations. However, numerous hurdles have still to be surmounted in the process. Again, as Douglas and Craig (1983) have

testified,

> "A major problem in the initial stages of international market entry is the bewildering array of countries and markets that could be entered. Since it is clearly prohibitive to examine all possible countries and markets, an initial screening procedure to determine which countries to investigate in-depth is required. Secondary data can provide the basis for this evaluation, either being used in standard or generalized classification schemata or indicators, or in customized models geared to specific company objectives and industries (Douglas and Craig, 1983:105)."

In furtherance of this cause, Douglas and Craig (1983) went on at length to compile an exhaustive list of annotated sources where secondary data may be drawn, and suggested that in the context of international marketing research, the problem is essentially not one of data scarcity, but rather one of the plethora of information available. The need for one to be selective and in exercising discretion in so far as information usage is concerned, cannot be over-emphasized. A concentrated effort can be levelled, firstly, towards macroeconomic indicators and industrial statistical sources.

For international comparison purposes, the United Nations (UN) could well be regarded as the leading authority and a major contributor to this cause. Statistics, on their own, have been claimed by many people to be nothing more than "dry bones". Yet, as Kurian (1984) had objected, it is this very nature of "dryness" which makes them valuable for comparative studies of nations where our judgements must be grounded in factual details. Other commentators in the field of construction, like Turin (1973), who spearheaded the attempts to correlate construction with development using macroeconomic data from the UN, likewise lamented at the magnitude of disorder arising out of the indiscriminate use of such data. It has been suggested by Turin (1973) that the significance of the data obtained is limited by :

1. the reliability of the information as reported by governments and official organisations.
2. the definitive equivalence and compatibility of economic aggregates as compiled by different countries.
3. the arbitrary relationships between national currencies concerning rates of exchange, both shadow and current.
4. the lack of comprehensibilty and completeness of economic aggregates in covering every construction activities, and
5. a seemingly high degree of error in the figures presented by centrally planned economies both before and after conversions to comparable equivalence.

Kracmar (1971), on the contrary, seems to be content with using statistical data from developing countries despite the warnings and dangers relating to their reliabilty. The desire to have measures for comparison between countries appears to provide a strong stimulus which allay all the fear of possible misinterpretations. In so far as marketing research within the international context is concerned, it would not be

unreasonable to suggest that a contrasting analysis of magnitudes is all that is required. As Kracmar (1971) rightfully argues,

> "the statistics of a single country, taken alone, cannot serve as an adequate yardstick of market size. Only in relation to other countries does the income of a certain country become a meaningful measure (Kracmar, 1971:68)."

Remaining apparently unperturbed, Kracmar (1971) continues at length to defend what many others have criticised as the incompleteness of statistical data from developing countries and the importance of national accounts statistics to these countries. Using examples drawn from the African continent, Kracmar (1971) has also embarked upon a hypothetical project to demonstrate the extent to which statistics may be obtained from both the Congo and Somalia, and in concluding the results of the findings, reported that the published information collected was remarkably complete. Kracmar (1971) also made reference to another African country, noting that shortly after World War II, the government concerned had requested for statistical expertise from the more advanced countries to help modernise and validate her statistical data and institution. It was then argued that in the absence of thorough statistical information, the vast economic resources available within that country would not have been made known, and without this knowledge, the investment opportunities emanating from foreign powers would not have been realised accordingly.

## 8.5. MKIS : THE EXTENT OF USE

The following subsections will attempt to examine the nature, utilisation and approaches to the use of MKIS.

### 8.5.1. FORMAL VERSUS INFORMAL APPROACH

In spite of the inexorable benefits accruable from a MKIS, its popularity seems to be lax. This endemic phenomenon has been acknowledged amidst a recognition that managerial activities, in essence, represent a spectrum of information needs. McLeod (1985), for instance, has reported that studies conducted in both the US and the UK have revealed a parsimonious attitude towards the adoption of the MKIS concept, and that even where it has been implemented, tends to reflect a low level of sophistication. The paucity hitherto was suggested to has occurred as a result of organisational and behavioural constraints within the operational framework. Cox and Good (1967) have similarly observed very few companies taking advantage of this approach despite the favourable returns ascribed to by its proponents. The technical specialisms available for the development of a MKIS would naturally lead one to reject the claim that this laxity has occurred because a relatively new ground is now trodden upon. Technicalities aside, the dominant impediments seem to have come from the socio-political influences within an unpredictable and dynamic marketing environment. Whereas the information needs can be specified quite readily in certain decisions, for example, in the case of stock levels control, this may

not always be so in many other marketing situations where the implementation of a formal system may become easily circumvented. Contrary to popular beliefs, management may therefore be able to respond less obstrusively to inputs from informal information systems. Hurst (1967) has pointed out that

> "We need only look at the banks of never used or little used systems to discover the truth about the changing human. By the time the human has defined the problem well enough for a decision support system to help, it has been solved or is no longer important (Hurst, 1967:2)."

This appears to imply that a formal information system, at inappropriate times, may in fact slow down and hinder the progress of the decision-maker. This would seem to accord well with the survey findings of Jobber's (1977) within the context of the British industry. Based on a usable sample size of 153 industrial companies, Jobber (1977) has confirmed a low rate of utilisation and sophistication for the MKIS because the participating firms felt that the dynamics of the industry within which they operate did not call for the development of information systems, since they could adequately manage all the information they used without recourse to any formal system.

Pointing towards a similar slack in this direction, Montgomery and Urban (1970) suggest that

> "Most existing information systems have been used for the storage, retrieval, and display of data. This emphasis is not surprising since the team which generally develops such systems is largely composed of computer systems personnel and rarely includes a member of the staff responsible for model-based market analysis. As a consequence, most marketing information systems have not achieved a balanced growth or tapped their full potential (Montgomery and Urban, 1970:233)."

### 8.5.2. COST-BENEFIT ANALYSIS FROM A SYSTEMIC APPROACH

The preliminary planning and formulation of a MKIS, depending on its degree of sophistication, would undoubtedly require the involvement of various professions. In tandem with the systemic approach espoused earlier, this would entail an elaborate consideration of all possible factors as inputs to the information system. This would ,however, seem to create a much more complicated MKIS in the process. By way of illustration, Cox and Good (1967) have demonstrated this tendency by relating advertising to sales. This proves to be an extremely complex task because of the many important variables which are uncontrollable, making it almost impossible to take them all into account in a reasonably sophisticated information system. That same analogy appears to explain why a formal MKIS has not been very popular in most sectors of the industry, and in particular, the construction industry. This seems to stem from the influence of cost-benefit analyses carried out to balance implementational costs with the returns expected from such an endeavour. Apart from estimation or speculation, it is difficult to say, at the initial stages, how much a

MKIS is going to cost or how much its worth will be. If the data required can be obtained from within the company, as opposed to outside the company, there is at least only a slight increase in data gathering costs. Otherwise, this would serve to add further to the negative side of the costs : benefits function. The question of how much monetary returns a MKIS can generate eventually has, it would seem, yet to yield an acceptable answer.

8.5.3. SOCIO-POLITICAL INFLUENCE ON A MKIS

A further influence over a MKIS within an organisation lies in management's acceptance and support for the same. In their expositions on system development within companies, Cox and Good (1967) have reported a striking characteristic among the companies which have successfully realised the potentials of a MKIS. Cox and Good (1967) have observed that

> "In every case, at least some members of top management have seen the promise of the technique and have viewed its development as a top management responsibility. They have devoted a great deal of time, thought, and effort to guiding (and sometimes actually protecting) the development process (Cox and Good, 1967:149)."

It would appear that top management's endorsements and support are both essential and necessary in grooming effective systems. While this may be so, it would be naive at the same time to assume the echelons of management to be one homogeneous unit. Far from this being true, organisation writers such as Handy (1981) and Pfeffer (1981) have consistently maintained a high degree of variance between the participants of organisational units. The behavioural and organisational constraints referred to earlier by McLeod (1985) point towards the socio-political influence which results from recurring conflicts of interests within the operational framework. These are the practical constraints imposed upon a MKIS as a result of a particular organisational culture and the manner in which people behave in that organisation. To introduce a MKIS either as an innovation or further development within an organisation would, according to Kotler (1980), tamper with the harmonious balance previously cultivated within that organisation. At the individual, group or departmental level, there remains an intrinsic resistance to change for the unfamiliar. The hoarding of information is therefore one avenue where the power base may be preserved and retained to overcome one's feelings of insecurity, uncertainty and unfamiliarity. This can consequently lead to a degradation of information systems. As Kay (1968) had exuberantly articulated, MISs are concerned with work functions and information flows which cut across traditional organisation boundaries. Various organisations involved in the system typically try to maintain their traditional status quo and tend to react defensively to those aspects of the system which challenge their usual methods of operations. Traditional organisational prerogatives are, as a result, affected by information systems through, for examples, control of work within the organisation, reporting of

organisation results, goal setting, etc. Cox and Good (1967) have been more blatant on this point. In addressing the question of why a leadership vacuum still exists with regards to MKIS design, planning and development, they suggested that this is partly due to the lack of an appreciation of the requirements and implications of a MKIS by top management, and partly because

> "it has an understandable reluctance to disturb entrenched and powerful departments (Cox and Good, 1967:150)."

When the inevitable does happen, a MKIS is often perceived as a barrier and consequently a threat between different functional units. Its validity will therefore be undoubtedly undermined. Speckman's (1979) approach to the problem takes a boundary view by considering the Marketing Department as a link between the organisation and its outside environment. This, being the key position where marketing information flows are manipulated and controlled, has been recognised by Piercy and Evans (1983) to be a highly sensitized and politicized domain.

## 8.6. PROBLEMS IN DEVELOPING AN INTERNATIONAL MKIS

The general problems encountered in the construction of a MKIS have been dealt with above. These are, however, examined within the context of the domestic environment alone. Placed in an international perspective, the same problems may be magnified even further. The degree of complexity can become more exaggerated as one moves away from the domestic scene into the international arena. Here, as before, a systemic view would seem to provide the only realistic approach for every conceivable variables to be taken into account. The adoption of this approach would, however, create its own set of practical constraints. As Adler (1967) has elaborated, all systems need appraisal and reappraisal, and systems' users as such must be prepared to embark on a continuous course of revisions to muster two considerations. Firstly, most systems' boundaries are not only shifting continuously, but modifications are also made to existing constraints; competitors come and go; variables not only change persistently but while some fade away, others crop up anew. This leads to the second consideration where the analytical processes are required to be iterative rather than one-off. Constant recycling is therefore the only means through which further up-to-date insights may be drawn and new hypotheses formulated. While mandatory reviews and revisions on a regular basis may be regarded as burdensome in the domestic context, this is likely to be even more so internationally.

A further obstacle in the use of information systems appears to lie in the faith and confidence one places on the results produced. As information systems for international comparison purposes are drawn in the main from statistical sources outside of the organisations concerned, a certain degree of uncertainty may persist among the users as to their statistical reliability. An unwillingness to accept the inherent limitations of any information system and in appreciating this fact seems to

lead to further rejection. There is, nonetheless, a limit as to how far these statistical insights may be used to substantiate objective decision-making. This can be understandable within the context of Wilkie's (1978) contention to the effect that

> "In an era when the search for 'information' is expected to lead to 'truth', it is necessary to recall that truth is multidimensional and, the more information we gain, is becoming ever the more complex. Data as information cannot lead to truth but perhaps they can give insight into some of its dimensions. More important than 'truth in data' and absolute accuracy is realizing that information is 'valid' only insofar as our interpretations and perceptions of it show complexity in meaning. Statistical data, like all information, yield circumstantial truths, not absolute ones (Wilkie, 1978:preface, p. ix)."

It is perhaps this very reason which give rise to a mild reception of the MKIS's role in decision-making.

Jepson and Nicholson (1972), in one of the earliest work on marketing within the UK construction industry, appear to project a similar tendency in describing marketing research which forms the foundation stone for a MKIS. In so far as marketing intelligence for the identification of business opportunities is concerned, they acknowledged that appropriate information tends to be less openly available, and even when available, has a limited life span. This tends to suggest a series of market research studies conducted over a continuous period of time. In the case of construction where a desk research can be severely curtailed because published sources are relatively less well-documented, the difficulties one encounters in data collection may be even more. These may again be aggravated further because companies' records are not drawn up by accountants to facilitate random access but rather for routine checking purposes. All these have the collective effect of rendering a MKIS in construction unattractive even when the outputs therefrom are clearly desirable.

While the physical sciences can lay claim to a number of constants for general applications, this is not the case in marketing as yet. Because marketing encompasses a diversity of human behavioural systems, both within and outside a company or country, neither constants nor fixed relationships can be derived readily. However, marketing systems do offer some opportunities within which scientific methods of research may be applied to set up information systems. Nevertheless, before this can be carried out, there must be some means of quantifying the causalised relationships of human interactions with marketing. As have been pointed out by numerous commentators, an initiation in this direction would appear to be unwise because of the unwieldy problems which may arise in measurements. In the case of international construction, the diverse requirements may involve yardsticks used for measuring standards of living, spending power, attitudes, desires, motives, expectations and such like. Even where developments in the fields of observations and sampling techniques, analysis and mathematical models may have had improved tremendously over time, in Rodger's (1965)

experience, the quantification hurdles cannot be easily resolved. The considerable difficulties and costs incurred in gathering reliable and worthwhile data still remain. An ability to overcome these obstacles, however, does not insist on flawlessness in drawing forth absolute evidence. In an endeavour aimed at uncovering the deceitful nature underlying what appears to be sound statistical applications for the construction industry, Turin (1970) argues that

> "the industry's indicators of current or recent levels of activity are often misleading for those who need to use them for policy and planning purposes and that although the relevant figures of the industry's state and prospects are made in good faith, the picture presented is often misleading (Turin, 1970:1)"

A swing from Turin's (1970) focus in the British industry to any other developing economies would certainly bring forth further disquiet. The smaller, less developed countries have frequently been accused of lacking the resources and skills in gathering and analysing statistical data. Yet these are all the crucial indicators of the national assets owned by each country in the Third World, information which is demanded because of its discreet functions in portraying what a country has in offer for the purpose of attracting and promoting investments from abroad. Ironically, not all the countries have pursued this line of thought. There are some countries who have abstained from providing a true picture of their conditions in order to exploit and continue to enjoy the priviledges and concessions normally accorded only to the poorer countries. Singapore is a good case in point. Having had impressive economic growth rates in recent years, Singapore was accused of doctoring or at best misinterpreting her national accounts statistics to prove economic hardships which subsequently enabled her to qualify for the special concessions granted by international financial agencies to developing countries. In yet other extreme cases in some countries, for political reasons, the collection and publication of statistical data may constitute a punishable criminal offence. For these reasons, and contrary to the optimistic views of Kracmar's (1971) noted earlier, the use of statistical data from developing countries inevitably creates a sense of wariness which requires further qualifications. Despite the inherent shortcomings of using overseas statistical sources, in the building of an information system which capitalises on data equivalence and rankability, Kurian (1984) argues that given these circumstances, only the best available data for the latest available year for each country should be taken. For those who feel that this method is hardly acceptable in scientific terms, Kurian (1984) continues on to reason that

> "these rankings can only reflect the state of the art in international statistics; the rankings are no better and no worse than the sources from which they are derived. A further caveat must be entered here about the quality and reliablity of data on developing countries. In general, there is a direct relationship between the quality and availability of data and the level of economic development. This is attributable not only to the lack of resources and expertise in developing countries but also to deliberate distortion of facts. Many of the

> developing countries manipulate data to suit their self-image (Kurian, 1984:preface, p. XII)."

In the same light, Wilkie (1978) similarly notes that at times, for various propagandistic reasons, a government may use statistics to mislead the readers and yet at the same time, remains technically equitable. Wilkie (1978) has also described instances of government's partial disclosure of information which only highly knowledgeable readers could be expected to appreciate, or when a change in series is not defined completely so that the compatibility of data before and after the linkage of differently defined concepts remains obscure to the less sophisticated readers. The virtues of compatibility have been extolled by both Douglas and Craig (1983) in their expositions of data collection and processing for the international marketing information system. In particular, the currency units used by different countries pose considerable difficulties in comparative analysis because of their incompatibilities in exchange rates used. As Douglas and Craig (1983) have recognised, the use of floating exchange rates as such may give rise to artificial shifts in capital funds and temporary balance of payments' results. The mechanisms which are capable of redressing these conversions or adjustment imbalances are thus essential for the building of a MKIS from data drawn from various overseas statistical sources.

Even when currency conversions can be carried out satisfactorily, Kendall (1976) suggests that within the scope of a time series, the data relating to values remains suspect because of the constant changes in the value of money. It would not be comparing par with par if the purchasing power of money in different countries differ significantly. This perhaps accounts for the interests of the UN in spearheading comparisons of such like, in what has now been come to be known as the International Comparison Project (I.C.P.). The crux of the problems lies in overcoming, or at least in lessening, the effects of all the uncertainties and variations described thus far. These are unfortunately formidable problems which nobody has yet to-date achieve a satisfactory solution. The choice, however, seems obvious enough. One can either refrain from using whatever statistical data that exists, in which case, there will be a complete lack of even make-do information systems; or one can adopt the use of derived information systems which must be read in conjunction with their attendant qualifications. Provided one is aware of the pitfalls and is selective in using the data with clarifications as to its reliability, the danger of misinterpretation and misuse may be avoidable. Even where apparently comparable data drawn from the traditional sources is available, Kurian (1984) has described the problem of data compatibility as a source of unending despair in international statistics because, strictly speaking,

> "the data used in rankings should be based on identical definitions, relate to the same calendar year or other base period, use the same techniques of collection, and be presented in the same form (Kurian, 1984:preface, p. XII)".

In some ways, the UN has taken a clear lead in promoting data compatibility through standardized methodologies aimed at member countries to encourage the adoption of consistent preparation processes, analyses and statistical presentations. The signatories to the UN Charter have generally accepted these conventions and as far as the understanding goes, have adopted them for their respective national accounts statistics.

A further source of irreconciliation lies in what has earlier been acknowledged as organisational conflicts within the company proper. Unlike domestic operations, where the MKIS may only be required to serve various localised regions, an international MKIS may be required to furnish operating details to a large number of overseas subsidiaries and branch offices spread over a large geographical area outside of the firm's country of domicile. Timeliness in communications may not always be achieved, with the result that after having resolved all the initial problems in developing a credible international MKIS, its contributions to decision-making is retarded hitherto because of the diversity in geographical spread among the organisations concerned. The often considerable distance seems to compound the problem further as a result of, firstly, the elapsed time between forwarding and the receipt of information, and secondly, the assumption that a single set of information systems nurtured within one environment is now applicable to another. In relating the paradox here to a further highly politicized behavioural influence, McLeod (1985) appears to favour an adaptation of the MKIS to match the organisation structure in order to neutralize the organisational and behavioural inefficacies therein. At the international level, the dynamic nature of a MKIS intended for use by a firm over a diverse geographical and pan-cultural spread, and its associated problems, seem obvious enough.

## 8.7. SUMMARY

The attractiveness of and need for a MKIS are discussed. The specifications for building a MKIS are dependent on the type of information required. A trade-off between the detailed collection of data and the use for the information needs to be considered within the Impact : Probability Matrix. Marketing research includes the gathering, recording, analysis and presentation of data for problem-solving. A systems approach is desirable here if a portrayal of reality and completeness is to be achieved. This approach can, however, be costly. The suitability of partially complete as opposed to total systems needs to be weighed. Marketing research problems are discussed. These include a consideration of the research design, the costs likely to be incurred, the lack of data, and the selection of the appropriate data from among the information sources available. Apart from providing an orderly flow of pertinent information, a MKIS also serves as a bridge between the environment and the decision-maker. A MKIS is made up of the Support System and the Operating System (which, in turn, consists of the Control, Planning and Research Subsystems). A

distinction was made between marketing research (the "flash bulb" analogy) and a MKIS (the "candle" analogy). International marketing research can provide information for decision-making in more than one country. For this purpose, secondary sources of data tend to be more useful than primary data for the initial purpose of screening countries. Primary data can, however, be useful after specific countries have been identified for further attention. The problems likely to be encountered in building an international MKIS are examined. These include the reliability of data, data equivalence, data rankability as well as their parities. The formal / informal approach, the costs / benefits spectrum and the socio-political influence on MKIS are discussed.

REFERENCES


1 Abdun-Nur E. A., "Control of quality - a system", Journal of the Construction Division, American Society of Civil Engineers, Vol 96 No. CO2, October 1970, pp. 119-136.

2 Adler L., "Systems Approach to Marketing", Harvard Business Review, May - June 1967, pp. 105-118.

3 Albaum G. S., "Information Flow and Decentralized Decision Making in Marketing", in Smith S. V., Brien R. H. and Stafford J. E. (Eds.), "Readings in Marketing Information Systems", Houghton Mufflin, Boston, 1968, pp. 238-253.

4 American Marketing Association, Committee on Definitions, "Marketing Definitions : A Glossary of Marketing Terms", 1960.

5 Amstutz A. E., "Market-Oriented Management Systems : The current status", Journal of Marketing Research, Vol. VI, November 1969, pp. 481-496.

6 Bartels R., "The Development of Marketing Thought", Richard D. Irwin Inc., 1962.

7 Bellenger D. N. and Greenberg B. A., "Market Research. A Management Information Approach", Irwin Homewood, 1978.

8 Boone L. E. and Kurtz D. L., "Marketing Information Systems. Current Status in American Industry", Journal of Marketing Research, August 1971, pp. 163-167.

9 Boughton P. D., "Marketing Research : Improving the Payout", International Journal of Management, Vol. 2 No. 4, December 1985, pp. 10-15.

10 Brien R. H. and Stafford J. E., "Marketing Information Systems : A New Dimension for Marketing Research", Journal of Marketing, Vol. 32 No. 3, July 1968, pp. 12-23.

11 Cox D. F. and Good R. E., "How to Build a Marketing Information System", Harvard Business Review, May - June 1967, pp. 145-154.

12 Douglas S. P. and Craig C. S., "International Marketing Research", Prentice-Hall International, 1983.

13 Exportasia, "Managing : Why use market research", EXPORTASIA, March 1985, pp. 34-39.

14 Graf F., "Information Systems for marketing", Marketing Trends, No. 2, 1979, pp. 1-3.

15 Hague D. C., "Managing in the macroeconomic environment", in Pickering J. F. and Cockerill T. A. J. (Eds.), "The Economic Management of the firm", Philip Allan Publishers, 1984, pp. 252-276.

16 Hague D. C., "Managerial Economics : Analysis for business decisions", Longman, 1969.

17 Handy C., "Understanding Organisations", 2nd Edition, Penguin, 1981.

18 Higgins J. C., "Information Systems for Planning and Control : concepts and cases", Arnold, 1976.

19 Hurst E. G., "Role of Humans in Decision Support Systems", Discussion Paper, Department of Science, Wharton School, University of Pennsylvania, 1967.

20 Jepson W. B. and Nicholson M. P., "Marketing and Building Management", Medical and Technical Publishing Co. Ltd., 1972.

21 Jobber D., "Marketing Information Systems in British Industry", Management Decision, Vol. 15 No. 2, 1977, pp. 297-304.

22 Kay E., "Some Organisational Problems Which Arise As A Result Of Large Scale Information Systems", in Smith S. V., Brien R. H. and Stafford J. E. (Eds.), "Readings in Marketing Information Systems", Houghton Mufflin, 1968.

23 Kendall M., "Time-Series", Charles Griffin and Company Ltd., London, 1976.

24 Kotler P., "Marketing Management : Analysis, Planning and Control", 4th Edition, Prentice-Hall International, 1980.

25 Kracmar J. Z., "Marketing Research in the developing countries", Praeger Publishers, 1971.

26 Kurian G. T., "The New Book of World Rankings", Facts on File Publications, 1984.

27 Lazer W. and Kelley E. J. (Eds.), "Managerial Marketing : Perspectives and Viewpoints", Irwin Homewood, 1962.

28 McDonald M. H. B., "Marketing Information Systems : A Review", Singapore Management Review, Vol. 2 No. 1, January 1980, pp. 30-43.

29 McLeod J., "Marketing Information Systems : A Review Paper", Quarterly Review of Marketing, Spring 1985, pp. 7-18.

30 Montgomery D. B. and Urban G. L., "Marketing Decision-Information Systems : An Emerging View", Journal of Marketing Research, Vol. VII, May 1970, pp. 226-234.

31 Montgomery D. B. and Weinberg C. B., "Towards Strategic Intelligence Systems", Journal of Marketing, Vol. 43, Fall 1979, pp. 41-52.

32 Moyer R., "International Market Analysis", Journal of Marketing Research, Vol. V., November 1968, pp. 353-360.

33 Open University, "Production", Statistical Sources 7, Open University Press, 1975.

34 Pfeffer J., "Power in organizations", Pitman, London, 1981.

35 Piercy N. and Evans M., "Managing Marketing Information", Croom Helm Ltd., 1983.

36 Rodger L. W., "Marketing in a competitive economy", Cassell / Associated Business Programmes, London, 1965.

37 Schumacher E. F., "Small is beautiful : A study of economics as if people mattered", Abacus, 1974.

38 Speckman R. E., "Influence and Information : An Exploratory Investigation of the Boundary Role Person's Basis of Power", Academy of Management Journal, Vol. 22 No. 1, 1979, pp. 104-117.

39 Turin D. A., "Construction and Development", Building Economics Research Unit, University College Environmental Research Group, London, September 1973.

40 Turin D. A., "An Index of Pessimism of the Construction Industry", Building Economics Research Unit, University College Environmental Research Group, London, 1970.

41 Wee C. H., "Techniques for identifying overseas markets", Marketing News, Marketing Institute of Singapore, December 1986 / January 1987, pp. 10-14.

42 Whitelaw R. R. P., "Marketing and Economics - An introduction to the use of Economic Indicators", Pergamon Press, 1969.

43 Wilkie J. W. (Ed.), "Statistical Abstract of Latin America", Vol. 19, UCLA Latin American Centre Publications, University of California, Los Angeles, 1978.

CHAPTER NINE

# THE APPLICATION OF MKIS FOR INTERNATIONAL CONSTRUCTION

## 9.1. THE ROLE OF MKIS IN CONSTRUCTION MANAGEMENT

To reiterate, it has been argued that efficient decision-making in marketing management requires an information system for identifying and anticipating market demands. An information system of this nature would in turn require a knowledge of who and where the potential clients are. This can be collated from marketing research exercises whereby data relating to potential clients may be gathered. These, however, provide only the information on what had already happened or is happening and does not address the issue of what will happen in the future. A certain amount of subjectivity and intuition is expected for interpreting the information culled. It must be pointed out that marketing research does not seek to replace management's role in decision-making, but rather facts are provided to assist management in reaching decisions. Highly accurate data may therefore be unnecessary if this does not prove to be desirable in the first place. Enhanced accuracy will in most cases results in increased costs.

The marketing research process will involve three classes of information. These are :

1. Data which the market researcher collects directly from observations, market surveys or from within the company's in-house records.
2. Data which can be gathered from official sources such as published national accounts statistics, companies' annual reports and such like.
3. Statistical and arithmetical computations of data obtained from the previous two classes. These will generally take the form of averages, measures of dispersion, correlation coefficients, percentages of market shares, etc.

The implementation of any marketing research exercise would require serious thoughts to be given to the type of information required and how these can be obtained in the most cost-effective manner. As will be demonstrated shortly in the following chapter involving an international MKIS relating to construction, the marketing research process can be divided into four distinct stages :

1. The preliminary planning : which sets out the information needed for the marketing problem at hand. This would require sufficient fore thought to be given as to what and why particular types of data need to be collected.
2. The fieldwork : where the data types previously identified are now garnered either from within the company or from some other external sources.
3. Analysis of the data collected : carried out only if these are not already in the format required, and
4. Applications of the processed data : as factual inputs for decision-making.

A MKIS which provides information on the construction industries in different countries may enable a firm to find out where potential overseas markets lie. Where construction value added data are adopted, the following rule-of-thumb forecasts may still be made based on two principles :

1. The growth rate for a country's value added by construction next year is likely to be the same as this year unless something else causes it to change.
2. The growth rate for a country's percentage share of the world's value added by construction next year is likely to remain the same as this year unless something else happened in that country or some other countries which causes it to change.

Kracmar (1971), for instance, believes that most forecasts in the business world are usually directed towards :

1. a quantitative projection of a company's future sales volume.
2. a forecast of the economic environment, and
3. a prediction and measurement of the various factors which affect the demand in the economic sector considered.

Uncertainties are bound to arise because of the difficulties in generalising how market changes occur and what account for them. Structural changes, which affect the market potentials for international construction firms, may occur as a result of one or a combination of the followings :

1. fluctuations in the number of clients.
2. fluctuations in the needs and wants of prospective clients, and
3. fluctuations in the buying abilities of prospective clients.

To a certain extent, it may be safe to say that the number of prospective clients is unlikely to change dramatically at any one point in time. On the other hand, the desires and purchasing power of prospective clients can be influenced both directly and indirectly by changes in the economic conditions. As a result of these fluctuations, the attempts made to forecast changes accurately may be virtually impossible.

## 9.2. SOURCES AND TYPES OF DATA FOR A MKIS RELATING TO INTERNATIONAL CONSTRUCTION

It has been one of the aims here to construct a MKIS relating to international construction markets which will be useful for firms contemplating works overseas or already operating in foreign countries. Such a system would preferably be able to indicate to its user the import values of construction services and products in different countries. Armed with this information, the user would then be able to evaluate more objectively the attractiveness of each country relative to all other countries. Because of the time constraint and limited research funding available, it would not be possible nor desirable to personally visit the statistical offices of every countries for the purpose of gathering the necessary up-to-date information required. As an alternative, one would therefore need to resort to some other less expensive modes of data collection. These would include statistical sources published officially by the UN and other similar international bodies. A preliminary search at the United Nations' Library based in London, the Export and Marketing Intelligence Library (EMIL) of the Department of Trade and Industry (DTI), and the London Business School's Library has revealed a dearth of data for construction services and

products imported by all the countries in the world. At best, only the import values of some construction-related materials (such as cement, wood manufactures, iron and steel, etc.) and equipments (such as self-propelled dozers, shovels, excavators, etc.) are available, classified in accordance with the Standard International Trade Classification (SITC) system[1]. These are, however, restricted to only the top fifty countries having the highest import values for the commodity concerned and are obtainable from various issues of the "International Trade Statistics Yearbook" published by the UN[2]. Since there are about two hundred countries and territories in the world, the analysis of fifty sets of data alone would mean the acceptance of sub-optimal decisions made on the basis of only a quarter of all countries and territories. Furthermore, information of this nature does not appear to indicate the potential market size and rate of growth for the construction industry in each country. Although this information may still be able to function as a yardstick, it can only be meaningful at the level of the commodity concerned and not at the level of the construction industry. An extensive search for information which indicates the volume of construction products imported by every country or services carried out by foreign contracting companies in each country, has led to the conclusion that such information is simply not available from these sources.

Import values are significant here because of the information which they can convey to foreign firms on the export opportunities available. The total domestic construction volume of each country, on its own, does not offer a holistic indication of such opportunities. The extremely large construction industry of one country may not necessarily provide good export opportunities for foreign firms for a wide range of protectionist, cultural and socio-political reasons. Because of this reason, the direct import values for each country are therefore deemed to be highly desirable. Nonetheless, in consequence of this lacuna, an alternative would be to use the construction value added figures for each country as substitutes for the data which are not available in the format required. This would seem to be the next best choice as the requisite information is now more readily available from official sources. However, the use of such data creates the same set of problems previously identified. Here, only the market size, and not the export opportunities, is measured. Nevertheless, in the light of what can appropriately be made available at affordable costs, it could be reasoned that the investigations would be adequately served if the construction market sizes and growth rates in every countries over a period of time can be annotated accordingly. The following sets out to argue why such an approach is viable.

### 921. ADDED REFINEMENT OF STATISTICAL DATA

Kurian (1984) suggests that the selection of international statistical data for use in global analysis should be based on the five concepts of availability, comparability, usability, reliabilty and rankability. In the ranking of more than one hundred and ninety countries according to their performances in over three hundred selected

areas, Kurian (1984) contends that

> "The output and refinement of international statistics have reached a level where it now seems possible, timely and logical to convert this raw data into indicators of comparative performance (Kurian, 1984:preface, p. XI)."

This would seem to suggest a level of sophistication which is high enough to generate confidence in the statistical data furnished by international agencies such as the UN, the IBRD and the IMF.

9.2.2. OBSCURITY OF COUNTRY-BASED STATISTICAL DATA

The analysis carried out here and in the works undertaken by others elsewhere have, in the main, made use of data aggregated at national levels. The adoption of countries as the units of analysis appears to has arisen out of convenience simply because there is no other better way of handling computations which involve cross-countries comparisons. However, in using this approach, there is an implicit assumption that the data in question applies homogeneously across the regions or subgroups within a country. In effect, this may not alway be so.

Regions, cities, communities and cultural sub-groups may display highly heterogeneous characteristics within a country and as such, must be taken note of in data interpretations. Douglas and Craig (1983) have urged analysts to acknowledge that the use of countries as the units for analysis in international marketing research may not necessarily be the most appropriate even though practice has traditionally followed this train of thought. While this may be a debatable point, one could argue that given the present circumstances in information sourcing, there does not seem to be much choice left except to make do with what is more readily available. Prudence would, however, help to substantiate some of the analyses here. An acute awareness of what lies within the data for each country would go a long way in achieving the correct interpretations desired.

9.2.3. STATISTICAL ACCURACY

While Wilkie (1978) appears to be divided on the issue of statistical accuracy, there seems to be a convincing argument that virtually all statistical data are erroneous as

> "Researchers have not yet developed the capacity to measure economic, social, and political phenomena with much accuracy because we do not yet know the true dimensions of what we seek to gauge. This problem is complicated, moreover, by what may be termed the factor of fickleness : what we sought to measure yesterday is not always of the same interest today because new problems require new data and because criteria and methods of measurement may change suddenly (Wilkie, 1978:preface, p. v)."

Wilkie (1978), nevertheless, goes on to argue with equal conviction that only people who are naive expect data to be absolutely accurate. Data accuracy, as such, only reflects what a generation deems significant to measure. This seems to accord well with the impressions one obtains from national accounts statistics where reliability does not feature as a high order of uncertainty because these are understandably

available only after the events have passed. At governmental level, policy decisions concerning economic activities may even have to be made based on partially complete data and preliminary estimates. As the Open University (1975) points out,

> "Governments and their advisers are well aware that the statistics are based on incomplete evidence or, in some cases, on unreliable data, and the larger the number of indicators that are available, the more likely are governments to take informed decisions (Open University, 1975:14)."

Based on a rough and subjective assessment of the "range of reasonable doubt", the Open University (1975) goes on to suggest that the estimated margins of error for value added in construction fall between approximately ± 3 percent to ± 10 percent.

9.2.4. EXTRACTION OF STATISTICAL DATA FROM VARIOUS SOURCES

The enormous diversity of the information requirements considered here would naturally mean that no one single source can provide a full series of data for the marketing task at hand. Even consultations with the various information sources available would, at best, yield only estimates. In conjunction with the data gathered directly from official sources (such as from the UN and the IBRD), some indirect approaches may also need to be made to replenish the generally incomplete information available. This may take the form of converting value added by construction for the countries concerned, which are normally expressed in their local currencies, into their United States Dollar equivalents using official exchange rates published by the IMF. Alternatively, the value added by construction for a particular country may be computed as a product between its percentage share contribution and its known Gross Domestic Product (GDP).

In their search for long-term strategic and short-term tactical solutions to marketing research problems, Douglas and Craig (1983) have gone a step further to delineate the information components required for an international MKIS. In all, they suggested that statistical data may be extracted from three different sources; namely ,

1. company specific information sources.
2. market specific information sources, and
3. the macroeconomic environment of a country.

For this reason and depending on the sophistication required, it appears that no one MKIS for international comparisons can be built without references to several information sources.

9.2.5. THE USE OF PAST MACROECONOMIC DATA

The ubiquitous use of macroeconomic indicators for making marketing management decisions has undoubtedly raised the validity issue of historical data. Montgomery and Urban (1970) have generally considered the use of macroeconomic models to be helpful because of their corresponding inclusion of a greater number of disaggregated variables which can lead to a consideration of more phenomena. These would however demand a larger expenditure on both time and costs. The development

of any model should preferably be evolved to adapt to the fluctuating needs of management. To reduce administrative costs in the use of macroeconomic indicators such as GDP for managerial decision-making, Hague (1984) maintains that such indicators should be narrowed and confined to the particular economic sector concerned. The following chapter which deals with an internationl MKIS relating to global construction, reflects this tendency closely. Therein, only the data pertinent to the construction industry of each country are used. In so far as the historical validity of most of the macroeconomic indicators which are commonly available is concerned, Hague (1984) goes on to argue that given the present situation, a good deal can nonetheless be deduced from an imaginative study of just some of the past economic and statistical data. Any objection to this contention would arise only because economists and statisticians have traditionally tried to incorporate a greater than necessary number of variables into business forecasting models.

9.2.6. THE USE OF SURROGATE MEASURES

It has been argued that a prior knowledge of the nature of the information required for a specific purpose may not necessarily yield the desired results because the data required is either incomplete or is not available in the format appropriate for the occasion. Under such a situation, other alternative surrogate measures which match the requisite specifications closely may need to be sought. The models which are built from these data sets are not therefore expected to provide the information in a choice form prescribed by the user. Nevertheless, models which are developed using surrogates or partially complete data are not without their merit.

It has been the aim here to construct an information system which will help international construction firms decide how best their resources can fit into the opportunities offered by foreign markets based on each country's import values for construction services and products. As noted earlier, these data are, however, generally incomplete. An alternative option would be to substitute the import values with the value added by construction for each country. Via absolute and relative yardsticks, these can also serve to indicate the marketing opportunities available in each country. Adler (1967) seems to be supportive of this approach when complete information of the type required does not exist. Even models which have yet to work well, Adler (1967) argues, are in a sense learning models because they teach us how to ask more insightful questions. Furthermore, when confronted with partially complete information, these models can help to pinpoint data gaps and to systematize procedural methods so that managerial judgements may be made more objectively. Boughton's (1985) views in this respect, likewise, appear to parallel those of Adler's (1967). In lending further support to an international MKIS using construction value added as the surrogate measures for identifying export marketing opportunities, Boughton (1985) reasons that although the data used may often be out of date, inadequately specified, or not directly applicable to the given problem, these nevertheless represent a wealth of data that can serve as the background

information for problem-solving.

## 9.3. THE USE OF NATIONAL ACCOUNTS STATISTICS

In order to develop an international MKIS for construction services, it has been necessary to make major references to the statistical data published by the UN. This section is concerned with how such data are built up and the problems faced in using the sources of information available.

The statistics derived from UN publications have their origins in the national accounts statistics of each individual country who subscribes to the UN. The accounts of each country are drawn up by adding together all the financial transactions of goods and services which flow within certain geographical boundaries in a specified period of time. The statistics thus produced seek to estimate the increase in the volume of these goods and services. The national income, which in the context used here refers to the GDP at factor cost, can be estimated in any one of three ways :

1. The Production or "industry of origin" method which is an estimate from the output side.
2. The Summation of Incomes approach which is an estimate from the Income side, and
3. The Expenditure approach which is an estimate from the expenditure side.

Figure 9.1 attempts to show the components which go to build up each method of computation. If there is flawless measurement and provided that full information were available, all the three methods of estimating national income would produce the same answer. These are essentially three different ways of measuring the same thing - the money spent in producing the goods and services must equal the outflow expended on the same, which must, in turn, equal the total income derived therefrom.

The "Production" side of Figure 9.1 shows that the net output of each economic sector is its contribution to GDP, and which can be referred to as the value of its total output less any services or materials brought in from other sectors or imported from other countries. It therefore represents the profits, salaries and wages of those employed in the sector and is equivalent to the value added by the corresponding factors of production. The mode of calculation for net output or value added is as follows :

| | |
|---|---|
| | Value of sales and work done |
| Less | Purchases of materials (with adjustments for value of stocks of fuel and raw materials) |
| Less | Payments for work subcontracted to other establishments |
| Less | Payment for transport |
| Less | Net amount of any subsidies, allowances, duties and levies payable |
| | Net output or value added |

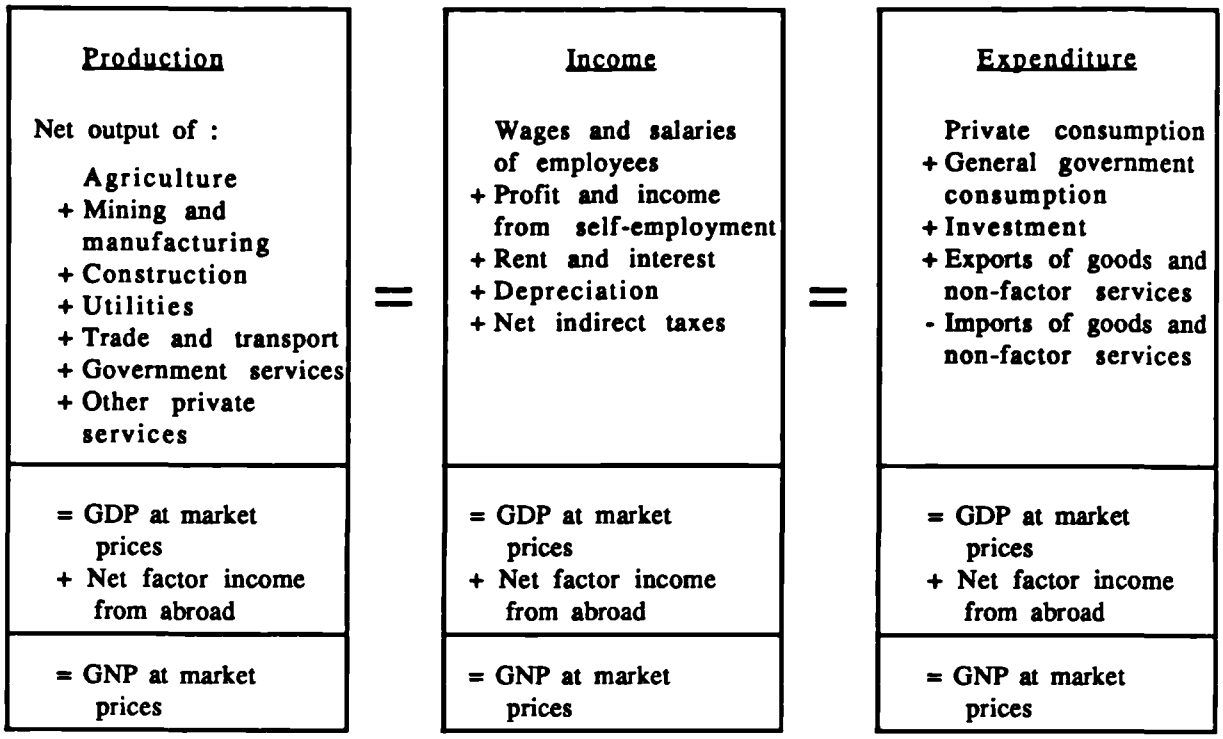



FIGURE 9.1. THE THREE WAYS OF ESTIMATING GDP / GNP AT MARKET PRICES
(Source : "The World Bank Atlas", World Bank, Washington, D.C., 1986.)

As value added figures correspond to the gross output of any particular activity less the inputs such as materials and plant, these do not reflect the actual values which can generally be greater. Al-Mufti and Cochrane (1986) have investigated the relationship between these two values for fifteen African countries and reported that the "placed in position" value of construction, on average, would be about 1.9 times that of the construction value added figure. Hence, in terms of actual value, the potential for construction firms could be considerably higher.

As noted in Figure 9.1, there are two avenues from which the aggregates of national output and expenditure can be estimated. These make use of either factor costs or market prices. Since governments impose various kinds of taxes on final expenditures (eg., Value Added Tax, Customs and Excise duties, etc.), the prices which companies, consumers and governments pay for the final product will not necessarily be equal to the incomes derived from production. On the other hand, the prices paid for certain final product may be less than the total factor incomes if there have been government subsidies directed towards the same. National aggregates can therefore be presented either in terms of market prices which are summations of national expenditure or product at prices including subsidies and taxes, or in terms of factor costs if taxes are deducted and subsidies added to the total.

The construction value added data collated for the MKIS in the following chapter is based as far as is possible on market prices. This decision was made after an exhaustive review of the various information sources available revealed a tendency for most countries' accounts to be presented in this manner. Nonetheless, there are

still some countries who report their value added by construction in factor cost terms while others report in purchasers' value terms or producers' value terms. There are yet others who do not seem to differentiate between these concepts with the result that GDP at factor costs is sometimes referred to as GDP at market prices and vice versa (see, for example, the 1980 and 1983 issues of "'World Tables', The World Bank"). Faced with this problem of trade-off between data accuracy and the availability of comparable information, there would appear to be some justifications in using market prices supplemented when necessary with factor costs under appropriate circumstances. In addition, the figures used were expressed in current prices, as opposed to constant prices, calculated in the prices of the year in which the incomes are received, the goods and services were produced and the expenditure made. Nevertheless, it needs to be stressed again that the use of current prices may not necessarily reflect the real values because of inflationary effects. At best, these can only serve as indicators for comparison purposes.

A further distinction needs to be made regarding the radically different ways in which national accounts are calculated between the "Western Free World" and the Soviet bloc of countries. In the latter, a differentiation is made between "productive" and "non-productive" incomes. As a result, incomes generated from services such as entertainment or hairdressing are regarded as "transfer payments" because these do not constitute "productive activities" which arise from producing material goods. Hence, these are arguably referred to as Net Material Products (NMP). Despite its desirability, the transformation of GDP and NMP into a common datum to facilitate comparisons would however be an impossible task given the lamentable lack of information in this area. In lieu of this difficulty, a direct comparison between these two concepts is nonetheless made here. It is therefore important to bear this in mind when interpreting the results of the information system in the next chapter.

## 9.4. COMPUTERISED DATA BASES AND SPREADSHEET MODELS IN INTERNATIONAL MARKETING RESEARCH

In heuristic terms, data bases may help to provide the means for the development of models in the decision-making process. A MKIS may therefore be regarded appropriately as a decision model in that it attempts to simulate the conditions and relationships of the various events or processes which exist in the real world. In so doing, the effects of a change in one variable or a combination of variables can be observed and measured in relation to other variables. There are, in essence, three stages in developing a model. Firstly, there is a need to identify the problem and specify the model parameters required to solve that problem. Secondly, an attempt has then to be made to estimate the data required and to extract them from within the context of what is available. Lastly, the model is formulated and repeated iteratively to check for its adequacy and validity. Jenkins (1979), in considering the dichotomy of model types, notes that

> "A quantitative model is one which allows a set of dependent (or output) variables to be calculated from a set of independent (or input) variables in numerical form. A quantitative model may take the form of a table of numbers, a graph or sets of graphs, or a set of mathematical equations. A conceptual model is one which represents the structure or mechanisms of a model but does not specify the relationships in numerical form. In iterative terms, a model can never be 'adequate' since, given a sufficiently long length of series, model inadequacies not detectable in a short series may be revealed (Jenkins, 1979:135-136)."

The separation of quantifiable and conceptualizable paradigms in model building, however, may not be highly discernible. Qualitative findings, as such, are often parts of the outcomes from numerical models. To carry this argument through, this tendency applies similarly to computerised models which are quantitative in many aspects.

Computerised models which are available in the commercial market have been found to capitalise frequently on the "what if" question in business decision-making. These often involve ludicrously simple but tedious calculations with numerous iterations run on a relatively large data base. The advent of computer software packages has been a response to this need to reduce the time spent in running through long series of computations in each iteration and have indeed proved to be extremely popular in recent times. Spreadsheet packages such as Lotus™, Visicalc™, Symphony™ and Multiplan™[3] have appeared on the market within a relatively short span of time of each other and in the field of marketing management, have been used for the purposes of budgeting, forecasting, simulation, analysis of advertising effectiveness, sales force allocation, pricing and break-even analysis, etc.. West (1987), Stiff and Laric (1988), and Albion and Hoff (1988), for instance, have demonstrated clearly their usefulness in rationalising marketing decisions.

The widespread use of spreadsheet programmes for handling and manipulating large data bases in marketing research has apparently led to a recognition of their capabilities by international organisations. It would seem that the adaptability of spreadsheet programmes in handling and analysing the plethoric range of macroeconomic data available has provided ample opportunities for such data to be made available on diskettes. The OECD (1987), for example, has now available for sale a series of main economic indicators and national accounts statistics (data from 1960 onwards) on diskettes which are compatible with Lotus™, Visicalc™, Symphony™ and Multiplan™. Further developments in this area have also produced a computerised data base which furnishes factual details for almost all the countries of the world[4].

Based on the methodology expounded above, the work undertaken here has been carried out using Multiplan™, Statworks™ and Statsview™, run on the Nimbus Research Machine and Apple Macintosh respectively. The inputs for the information system are, however, collated manually.

## 9.5. A QUESTION OF CRUDITY AND ACCEPTABILITY

Douglas and Craig (1983), in their work on international marketing research, have

stressed the need to integrate secondary, company and primary data into the MKIS. However, for two reasons, the statistical analyses in the next chapter will relate, in the main, to only secondary data inputs. Firstly, there will undoubtedly be immense difficulties in persuding firms to provide information for developing MKIS tailor-made to their requirements. Secondly, the lack of such information, which would normally be classified as confidential, would create further problems in orchestrating an appropriate research design for collecting the relevant primary data. Under such circumstances, a case for the use of secondary data from readily available published sources can be established. As Montgomery and Weinberg (1979) have argued, although many firms may like to have some direct measures of their competitors' intentions, such measures are normally found to be lacking. As a result, these firms may have to rely on alternative indicators or surrogate measures. Surrogacy, however, is often laced with complaints. The contentious issue of crudity may feature rather prominently here. On the other hand, it would seem reasonable to argue that a crude model is better than to have nothing at all. Kracmar (1971), for instance, strongly believes that

> "in business, absolute accuracy is seldom necessary. What is important, and feasible even in the developing countries, is that reasonably reliable data be forthcoming on which plans can be formulated with the assurance that they will not be entirely wrong. In any case, where facts can be obtained, it is better to be 50 per cent certain than to rely on mere guesses (Kracmar, 1971:15)."

Moyer (1968), in analysing the techniques used for making international market evaluation within the limits of the data available, clearly testifies to this view. Nevertheless, because most of the developed countries are able to generate more refined industrial statistics upon which marketing research efforts can be based, the degree of crudity tends to be diminished accordingly in these countries. Whitelaw (1969) also reflects similar sentiments relating to the use of economic indicators in marketing research. In considering whether an exercise of this nature would be worthwhile, Whitelaw (1969) goes on to suggest that

> "it is better to have a less-than-perfect standard, the shortcomings of which are known, than to have no standards at all (Whitelaw, 1969:51)."

Douglas and Craig (1983) have ventured a step further in putting these testimonies into practice by using advanced barometric analysis which assumes that if a direct relationship can be established between an indicator of a country and consumption of, say, a particular product, service or commodity in the said country, that same relationship can be extrapolated for use in yet other countries. By way of illustration, a relationship between cement consumption and a country's Gross National Product (GNP) was suggested and linear regressional models developed and applied. With particular reference to the construction industries of developing countries, a word of caution was however offered by both Edmonds and Miles (1984). While

acknowledging the usefulness of industrial statistics for comparative purposes, Edmonds and Miles (1984), nonetheless warn of the dangers in over-emphasizing their applications because

> "in the first place, it is difficult to collect comprehensive statistics on an industry which is physically dispersed, covers the public and private sectors, relies on the use of casual labour, spans the formal and informal sectors and where the responsibility for producing the end product is separated from its original design. Secondly, any analysis of the limited statistics available should be used to provide indicators of achievement, and not to base policy decisions upon (Edmonds and Miles, 1984:14)."

Despite all these reservations pertaining to the use of existing statistical data sources, their adoption does not seem to have diminished to any significant extent. As the arguments put forth have shown, there seems to be two schools of thought which account for this phenomenon. Firstly, the possession of a crude model is in every sense better than to have nothing at all. This, to a certain extent, avoids the need to rely on guesses or hunches. Secondly, where the drawbacks are concerned, the validity of such an approach will not be undermined so long as the user is aware of the shortcomings while the results of such models are interpreted. An accommodating understanding in this direction would tend to expand, not negate, the usefulness of these models.

The problem of crudity can either take roots in the accuracy or comprehensiveness of the model or a combination of both. In conducting marketing research activities within the macroeconomic environment, the data required for analysing any sizeable marketing problem is unlikely to be fully complete. It will and has always remained a major hurdle for those who want to incorporate every conceivable variable, which appear to be relevant for the particular problem, into decision-making models. Hague (1984) contends that this needs not necessarily be desirable in making good decisions because even without accounting for the diverse political, social and technical influences, there is already in existence a good number of complex economic factors which await considerations. The need to anticipate and integrate all the information relating to future political, economic, social and technological conditions has been suggested by Douglas and Craig (1983) to be a major problem in assessing the investment climate in different countries for the purpose of developing a global marketing plan. As a result, while these are important domains which cannot be ignored, yet because of the problems in relating them in a meaningful manner, there exists an innate bias to screen out some of these factors altogether. Some would however criticise this approach for its lack of rigour and sophistication and for taking what appears to be the easiest way out. Hague (1969) concedes that this needs not be so because

> "The businessman too, can hope to understand the situation facing him only if he can analyse them clearly and state them simply. Simplified representations of reality - models - are his only hope of drawing out what is essential and what

> is inessential to particular problems in a complex modern business world. But to be successful, a model *must* be relatively simple; it must certainly be more simple than the reality it represents. It may be attacked by some people precisely because of this simplicity. This would be wrong. What is essential is not that the model should portray reality exactly, but that it should portray reality as simply as possible (Hague, 1969:13-14)."

The use of macroeconomic data for developing MKIS has traditionally drawn on data sources furnished by the UN. The adoption of this approach which utilises data from officially recognised sources has helped to reduce the degree of perceived crudity significantly. This has, in turn, served to enhance the attractiveness and acceptability of the data. In precisely the same fashion, Dawson (1979) has endorsed the use of a common statistical base because the inherent statistical errors therein and the difficulties concerning their interpretations may be minimised. Market data of this nature may, however, be generated with considerable lapses between observations because of the varying degree of dynamism found in different countries. This generally leads to a dearth of up-to-date data which is available only from a small number of the relatively more advanced countries. Faced with these information gaps, it would be sensible to adopt the contentions of both Montgomery and Urban (1970) who have encouraged a reliance on judgement until the appropriate data becomes available. Such an approach, however, appears to be highly questionable to Rodger (1965) because

> "The lack of essential information, the use of irrelevant or inaccurate information as well as the misuse of any information can seriously impair a firm's competitive performance (Rodger, 1965:77)."

As a result of the inconsistencies and variations in and between observations, the responses to changes in different countries may not become apparent immediately. The chain effects which are likely to occur in each country and the time lags between each series of change may vary and fluctuate over time, thus making it all the more difficult to explain why and how the economic shifts relate to each other. The shift in the sectoral shares between two periods which seek to measure the extent of change in their respective industrial structures is one example of such changes. The UNIDO (1985), as such, has reported that these structural changes are complex phenomena which can pose immense complications in measurements. The explanation of these structural changes - how, why and when these occur - is an even more daunting task. Because of this inability to deal with these demands, the models constructed are consequently labelled as "crude". Quantitative models which try to adopt a systemic approach also appear to suffer the same fate. As a result of the enormity of most marketing problems, quantitative models have often been developed singularly to deal initially with isolated parts of the problem before converging at a later stage to tackle the problem as a whole. An international MKIS which relates to construction on a world-wide basis, likewise, builds on such an understanding. It can be considered as an amalgamation of various subsystems in

their own right and can be disaggregated further into greater details at the global, regional, national and economic levels. The paradigm here would accord well with McDonald's (1980) understanding of the problem which considers that

> "Whilst it is tempting to think in terms of building a totally integrated (MKIS) from first principles, experience suggests that it is better to think and plan 'total' but to build 'piecemeal'. Adopting a building block approach, each block of which represents a subsystem for meeting a discrete information need, will eventually enable a totally integrated and sophisticated system to be developed in accordance with the experience of the users (McDonald, 1980:37)."

Cox and Good (1967) have similarly opted for the manageable stages where system development can take place rather than the attempts made to develop "total" systems at one single go. This is because no one knows well enough to accomplish all the developmental phases of a MKIS. A concerted effort by all the departments and individuals concerned is therefore required. To nurture an acceptance, the market research design for developing a MKIS would therefore need to be custom-made to fit the individual firm. As the international portfolio model developed in Figure 9.2 depicts, this would entail a consideration of the countries, modes of operations, marketing strategies, product and service segments involved before the operational framework can be finally established. Because a company may deal with more than one product or service in more than one market, the optimal combination would need to take into account their various modes of operations and their associated marketing strategies.

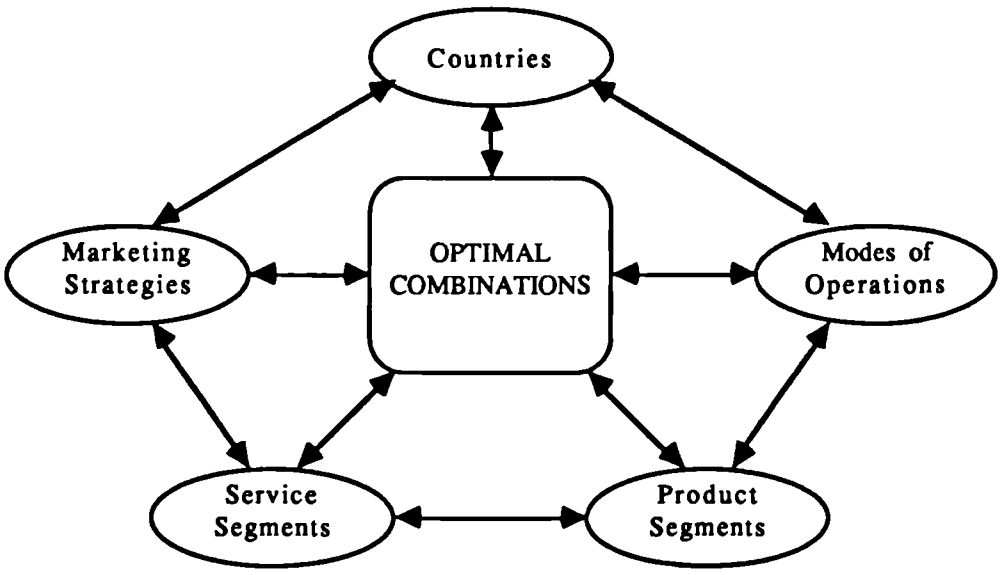



FIGURE 9.2. THE INTERNATIONAL PORTFOLIO MODEL

(Source : Developed from Y. Wind and S. P. Douglas, "International Portfolio Analysis and Strategy : The Challenge of the Eighties", Journal of International Business Studies, Fall 1981, pp. 69-82.)

Along similar lines, Moyer (1968) has also been instrumental in putting forth the various analytical techniques which can be used without the analyst incurring

excessive expenses. Among the methods described are Demand Pattern Analysis, Income Elasticity measurements, Multiple factor indexes, Estimation by analogy, Regression analysis, and Input-output analysis. The degree of crudity pertinent to some of these methods can be gleaned from their underlying assumptions made. For instance, it has been suggested that the demand patterns in the developed countries can be transferred to other less developed countries at the same level of economic growth. This is based on the assumptions that :

1. There is a linear relationship in the consumption function, and
2. There are comparable consumption patterns among the countries considered.

Wee (1987), in turn, has carried out an exhaustive review of the techniques available for identifying overseas markets, including those of Moyer's (1968). As the summary of Wee's (1987) evaluation shows in Table 9.1, some of the techniques are clearly more desirable than others. Within the context of international marketing research, a fair amount of crudity, it would seem, is therefore to be expected.

| Analytical methods | Need to have other data besides import data | Need to know factors which correlate with demand of product | Need to have many "years" or sets of data |
|---|---|---|---|
| Demand Pattern / Input-Output Analysis | Yes | Yes | Yes |
| Income Elasticity Measurement | Yes | Yes | Yes |
| Multiple Factor Index | Yes | Yes | - |
| Estimation by Analogy :<br>1. Cross-section<br>2. Displacing time | <br>Yes<br>Yes | <br>Yes<br>Yes | <br>-<br>Yes |
| Trend Analysis | No | No | Yes |
| Simple Constant Growth Method | No | No | No |
| Shift-share Analysis | No | No | No |

TABLE 9.1. ANALYTICAL METHODS FOR THE IDENTIFICATION OF EXPORT MARKET OPPORTUNITIES

(Source : C. H. Wee, "Techniques for identifying overseas markets", Marketing News, Marketing Institute of Singapore, December 1986 / January 1987, pp. 10-14.)

## 9.6. METHODS OF APPROACH

The following subsections now proceed to examine the various issues relating to the development of a MKIS for identifying international construction opportunities.

### 9.6.1. LOGIC FLOW

The selection, collation and analysis of chosen statistical data are all indicative of the procedures undertaken to generate a more meaningful understanding of the problem on hand. The desired end results can be expressed in a number of ways such as sum totals, percentage shares, growth rates, ratios, etc., All of these invoke at least one or a combination of four primary modes : rhetorical, gross, comparative and interpretative. The usefulness of such statistical findings, as Kurian (1984) acknowledges, would enable one to understand the past, analyse the present and plan for the future. The four primary modes, if applied to construction export marketing management, would be able to yield a clearer picture as shown below :

1. A rhetorical mode : expresses the symbolic or non-numerical expression of facts (Example : for construction firms which are willing to extend their operations abroad, the foreign markets will invariably offer immense opportunities for those who persevere.)
2. A gross mode : provides a broad indication of the magnitude involved (Example : the developed market economies' share of the world's value added in construction amounts to about 70%.)
3. A comparative mode : reflects the interrelationships amongst and between component parts considered both in isolation and in totality (Example : North America's share of the world's value added in construction is approximately twice that of the USSR's.)
4. An interpretative mode : derives factual conclusions from studies of "cause-and-effect" (Example : the larger share of global construction volume by a smaller number of more advanced countries is a yardstick of their higher levels of economic achievements and developmental activities.)

The desirable use of numerical methods to objectively analyse and measure the relationships between variables is self-evident. Although this seems to amount to a highly formalised mathematical process within the context of strategic intelligence systems, Montgomery and Weinberg (1979) have argued that this is more akin to a logical rather than a mathematical process.

### 9.6.2. LEVEL OF DISAGGREGATION

In specifying the design layout of a MKIS, a decision needs to be made concerning the appropriate level of disaggregation required for the marketing problem. Costs and flexibility are two important factors which merit further consideration. A disproportionately high level of disaggregation is likely to result in greater costs although this may be offset by the correspondingly high flexibility one obtains in return. Flexibility is desirable for a MKIS when :

1. A need for future upgrading has been anticipated by the user, and
2. The user has been unable to forsee all the important management information needs and hence has to allow for some leeway which will consequently enable the current system to increasingly evolve to the level of sophistication required over

time.

Cox and Good (1967) have suggested that if the firm can well afford the costs, a prudent decision would be to develop a disaggregated data bank. A disaggregated data bank, as such, can provide further facilities for additional outputs at other levels of aggregation. In relating a MIS to the marketing executive, Amstutz (1966) observes that

> "At the heart of every successful information system is a disaggregated data file - a file in which information is maintained in detailed sequence as it is generated. As new inputs are received, they are maintained along with existing data rather than replacing or being combined with existing information. In the first stages of system development, it is simply impossible to anticipate the direction of later advancement. Aggregated data files may preclude highly profitable system modification. The disaggregated data file provides the flexibility which is a pre-requisite of intelligent system evolution (Amstutz, 1966:76)."

The extra cost needed to maintain a disaggregated data bank has to be balanced against the future possibility of market developments which will require modifications to be made to the information system. Developing a highly aggregated data bank may stifle such modifications because of data limitations. As a result, management's ability to make decisions effectively may be affected because of these constraints. The collection and storage of data should, in Montgomery's and Urban's (1970) views, be maintained in its most elemental and disaggregated form. Within the operational framework of a dynamic environment, a data bank design is therefore unlikely to be a finite, one-off process. Rather, the design should, where possible, be based on an evolving and readily adaptable system. As the MKIS in the next chapter will show in due course, the influence of time on data availability tends to give rise to an on-going research design supplemented with improvements as and when further upgrading data is made available. The recording and storage of data should therefore proceed in a manner most convenient for accommodating future data additions.

### 9.6.3. ABSOLUTE AND RELATIVE MEASURES OVER TIME

The incorporation of future data as and when they become available into the system would appear to undermine previous findings based on the data then available. Time series analyses, in particular, suffer from this setback when up-to-date data is not readily available. Yet, this mode of analysis has been entrusted with the task of providing the essential background information for absolute and relative measurements. As Douglas and Craig (1983) have suggested, in the evaluation and comparison of performance in different countries, there is a need to carry out the assessment in both relative and absolute terms so that a greater understanding of the differences in operating conditions and the market environment may be obtained. As this is normally a continuous process, past data are therefore not superceded but rather strengthened by current and more up-to-date data. For prediction purposes, Rodger (1965) argues that

> "The revision of a forecast once it has been made and found to be in error should not be looked upon as a failure on the part of the forecaster. The very fact that the factors underlying the initial forecast have changed - and the assumptions on which a forecast is based should *always* be explicitly stated - would be reason enough for having a forecast in the first place (Rodger, 1965:147)."

In situations where the specification of economic aggregates is vague, Jarret (1987) considers that

> "the best that one can do is to use the best available data at any one time (Jarret, 1987:290)."

As such, this does not seem to pose a new problem.

9.6.4. THE QUALITATIVE ASPECTS

The use of numerical data by market analysts can has an overwhelming effect. In so far as quantification is concerned, this furnishes objective measures which can help to refute the objections raised by others on conceptual or subjective grounds. In considering the qualitative aspects of forecasting, Jarret (1987) again regards human judgement to be essential for establishing trends or relationships in time series analysis and to select the appropriate quantitative models. Both qualitative and quantitative elements are therefore required for choosing the relevant statistical models. Nonetheless, Moyer (1968) urges practitioners not to over indulge themselves with numerical methods because

> "Quantifying relationships may be a useful exercise, but they often mask overriding qualitative factors that outweigh the numerical relations. This is especially true when macro techniques are used to analyze micro markets (Moyer, 1968:354)."

Kurian (1984) appears to think along similar lines although there is now a tendency to look at quantification as a preliminary first step towards achieving qualitative results. However, because numeracy provides a diagnostic tool to evaluate growth, monitor excellence, pinpoint flaws and identify dangers, prejudiced and ill-informed opinions and judgements can be overcome much more readily. While quantification can be attained using computerised models and such like, the extraction and interpretation of the qualitative impressions rest with the user alone. A MKIS, likewise, should not be looked upon as an end in itself, but rather to provide the background information for more objective opinions to be formed based on factual details.

9.6.5. A RANKING APPROACH

The macroeconomic information of one country is unlikely to be appreciated unless it can be compared with those of other countries. One way of doing this is through a ranking of countries based on their comparable statistics. Kurian (1984) seems to suggest that a ranking approach at the global level can add to our knowledge of the world and in giving us further new insights. Although this brings back the

unwieldy issue of numeracy, the learning process nevertheless starts the very moment one attaches a number to an idea. Douglas and Craig (1983), in their exposition of Market Potential Indices based on secondary data, similarly advocate the use of a rank order to obtain a rough estimate of the potentials in different markets. In so doing, the attractiveness of each market in different countries can be calibrated and compared.

Because of its clarity, rankability has been adopted here as one of the key concepts in developing the MKIS for comparing construction volumes and growth rates between countries. The order of ranking, in the first instance, will be based on the types of economies. This will then be followed by comparisons at the regional and national levels. These will again be disaggregated further to take account of their absolute volumes, percentage shares of the world construction volume, rates of growth and closeness of fit.

9.6.6. ANALYSIS OF TRENDS

Another meaningful comparison between the construction markets' potentials of different countries relates to their respective growth trends. However, a distinction has to be made between the use of past trends as a basis for comparing past performances and for predicting the likely future development. Various statistical procedures may be used here, including trend analysis using time series techniques. These can be computed with or without data transformation using methods such as moving averages, logarithmic extrapolation and exponential smoothing, etc.. The appropriate techniques used would depend on the type of data available and the number of years for which it is available. Although Douglas and Craig (1983) have suggested the use of data extrapolation techniques to estimate demand for international marketing research, the results would need to be interpreted with caution because of the volatility one encounters in the international environment. Nonetheless, Wilkie (1978) seems to favour the results of a trend analysis obtained over a period of time rather than from the specific data of a single year. This is because the reliability of the figures for any one year is not as important as the statistical trend over time. On the issue of why statistical trends tend to yield a higher level of confidence than the data for any one particular year alone, Wilkie (1978) reasons that

> "It is difficult for officials to consistently fudge government data for many years owing to the fact that officials with different interests come into power and anomalies show up in statistics (Wilkie, 1978:preface, p. vi)."

The inconsistency over time can be highlighted from the closeness of fit computations using the same set of data. Where these problems do arise, further research may be required to investigate what have occured over the years to give rise to such deviations. The large number of countries involved in a global marketing research exercise would, however, pose immense difficulties in detailed

clarifications.

In multicountry data analysis, Douglas and Craig (1983) have called for the adoption of a two-stage or sequential approach to analysing cross-national data. This means that the data is first analysed within each country. This is then followed by the second stage where the findings of different countries are compared and the extent of the observed variances and similarities investigated. The two-staged approach proposed above has similarly been adopted here for the findings presented in the following chapter. Firstly, regressional analyses and percentage share computations are carried out for each of the 180 countries identified. In the second stage, the results computed are then sorted out and ranked for the purpose of comparison. The interpretation of data here is performed within the factual framework generated and no further. Kurian (1984), in a comparison of more than 190 countries, similarly reports that

> "there has been no attempt to predict trends or force conclusions, although the temptation to do so has frequently been very great (Kurian, 1984:preface, p. XI)."

To do otherwise, as Edmonds and Miles (1984) have warned, can be extremely misleading if the cause-and-effect relationships are consequently misinterpreted.

## 9.7. LIMITATIONS

Taking all the above reservations into consideration, a conscious attempt has been made to avoid as many of these pitfalls as possible. The MKIS developed here, as a result, tends to have a general rather than a firm-specific orientation. This approach has been adopted for two reasons. Firstly, generality can help to provide utility for a greater number of firms. Secondly, this seems to be the most attractive alternative if the participation of firms is not to be introduced. In any case, this is likely to give rise to further complications if the requirements of all participating firms, if any, are to be taken into account. Any MKIS which is tailor-made for a firm and yet does not include all the pertinent requirements of that firm is unlikely to be realistic.

For countries to be ranked on the basis of their respective values computed, it has been necessary to present their iterations in three or more decimal places. However, these conventions do not, in the first instance, serve to indicate a high level of accuracy since the term "estimates" has been used throughout the next chapter. Rather, this refined convention has been adopted for two reasons :

1. To enable comparisons and rankings between countries to be made, especially for those whose computed values are extremely close and are hardly discernible, and
2. To prevent countries from "disappearing" altogether after a rounding-off iteration. This is particularly so when the computed values of the smallest countries are compared with those of the largest ones.

The above must again be looked at from the context of the special problems relating to the identification, organisation and measurement of global construction statistics.

While the UN has endeavoured to reduce some of these discrepancies by issuing guidelines and recommendations for the collation of statistical information for the construction sector of each country, the institutional problems have still remained largely unresolved. The limitations which arise as a result of the peculiar characteristics of each country's construction activities have been recognised and endorsed by the UN[5].

## 9.8. SUMMARY

Four stages were identified in the formulation of MKISs for the construction industry : planning for data collection, fieldwork, analysis, dissemination and applications. Data can be collated from within the company, outside the company or generated by the market researcher. The wealth of information (mainly from National Accounts Statistics) provided by the UN can be an important source of data for building international MKISs. The problems associated with data sources of this nature are also discussed. These include a consideration of the level of data refinement required, the degree of obscurity and accuracy of the data published, the validity of historical records and the adoption of surrogate measures. The contribution of construction to GDP for each country was subsequently identified for collation from published National Accounts Statistics. Transformations of the data collected were carried out using computer spreadsheets and other software packages. The degree of acceptable crudity, the analytical methods appropriate for the purpose required and the type of data available have to be considered to provide a logical sequence to the research design. Thereafter, the level of disaggregation required, the types of measures (absolute or relative) to be used, and the qualitative interpretations of numerical results (eg. rankings and trends) can be determined.

FOOTNOTES

1 "Standard International Trade Classification (SITC)", Statistical Papers, Series M No. 34, United Nations. (See different issues for the various revisions made to SITC.)

2 Department of International Economics and Social Affairs, "International Trade Statistics Yearbook", United Nations. (See various annual issues. There are two volumes in every yearly edition; the first dealing with Trade by Country, and the second deals with Trade by Commodity.)

3 Lotus 1-2-3 and Symphony are Trademarks of Lotus Development Corporation; Visicalc is a registered Trademark Inc.; and Multiplan is a registered Trademark of Microsoft Corporation.

4 "World View", PC PLUS, Issue 21, June 1988, pp. 60-61, Future Publishing Ltd. (This article describes "PC Globe", a computer package developed by Comwell Systems of America. "PC Globe" attempts to incorporate details of the entire world onto the IBM machines or IBM compatibles - exploring in the process, some 177 countries ranging from Afghanistan to Zimbabwe.)

5 Department of Economic and Social Affairs, "Construction Statistics", Studies in Methods Series F No. 13, Statistical Office of the United Nations, United Nations, 1965. (This has, in turn, been superseded by "International Recommendations for Construction Statistics", (ST/STAT/SER.M/47), United Nations Publication Sales No. E68 XVII 11.)

REFERENCES

1 Adler L., "Systems Approach to marketing", Harvard Business Review, May - June 1967, pp. 105-118.

2 Al-Mufti M. A. and Cochrane S. R., "The construction scene in Africa : trends and realities", Proceedings of the Institution of Civil Engineers, London, Part I, Vol. 80, June 1986, pp. 685-705.

3 Albion M. and Hoff T., "Business Decision-making with 1-2-3", Prentice-Hall, 1988.

4 Amstutz A. E., "The Marketing Executive and Management Information Systems", in Hass R. M. (Ed.), "Science, Technology and Marketing", American Marketing Association, Chicago, Fall 1966.

5 Boughton P. D., "Marketing Research. Improving the Payout", International Journal of Management, Vol. 2 No. 4, December 1985, pp. 10-15.

6 Cox D. F. and Good R. E., "How to Build a Marketing Information System", Harvard Business Review, May - June 1967, pp. 145-154.

7 Dawson J. A., "The Marketing Environment", Croom Helm Ltd., London, 1979.

8 Douglas S. P and Craig C. S., "International Marketing Research", Prentice-Hall International, 1983.

9 Edmonds G. A. and Miles D. W. J., "Foundations for change - Aspects of the construction industry in developing countries", Intermediate Technology Publications, 1984.

10 Hague D. C., "Managing in the macroeconomic environment", in Pickering J. F and Cockerill T. A. J. (Eds.), "The economic management of the firm", Philip Allan Publishers, 1984, 252-276.

11 Hague D. C., "Managerial Economics : Analysis for business decisions", Longman,

1969.

12 Jarrett J., "Business Forecasting Methods", Basil Blackwell Ltd., 1987.

13 Jenkins G. M., "Practical Experience with Modelling and Forecasting Times Series", Gwilym Jenkins & Partners (Overseas) Ltd., 1979.

14 Kracmar J. Z., "Marketing Research in the Developing Countries", Praeger Publishers, 1971.

15 Kurian G. T., "The New Book of World Rankings", Facts on File Publications, 1984.

16 McDonald M. H. B., "Marketing Information Systems : A Review", Singapore Management Review, Vol. 2 No. 1, January 1980, pp. 30-43.

17 Montgomery D. B. and Urban G. L., "Marketing Decision-Information Systems : An Emerging View", Journal of Marketing Research, Vol. VII, May 1970, pp. 226-234.

18 Montgomery D. B. and Weinberg C. B., "Toward Strategic Intelligence Systems", Journal of Marketing, Vol. 43, Fall 1979, pp. 41-52.

19 Moyer R., "International Market Analysis", Journal of Marketing Research, Vol. V, November 1968, pp. 353-360.

20 OECD, "National Accounts : Detailed Tables Volume II (1973-1985)", Organisation for Economic Co-operation and Development, 1987. (The availability of statistical publications on diskettes has been noted in this volume as well as earlier issues.)

21 Open University, "Production", Statistical Sources No. 7, Open University Press, 1975.

22 Rodger L. W., "Marketing in a Competitive Economy", Cassell / Associated Business Programmes, London, 1965.

23 Stiff R. and Laric M., "Marketing Management : Analysis Using Spreadsheets", Prentice-Hall, 1988.

24 UNIDO, "Industry and Development Global Report", First in Series, United Nations Industrial Development Organisation, 1985.

25 Wee C. H., "Techniques for identifying overseas markets", Marketing News, Marketing Institute of Singapore, December 1986 / January 1987, pp. 10-14.

26 West A., "Spreadsheet Marketing", Gower, 1987.

27 Whitelaw R. R. P., "Marketing and Economics. An introduction to the use of Economic Indicators", Pergamon Press, 1969.

28 Wilkie J. W. (Ed.), "On the Accuracy of Statistics and Development of Time-Series Data", in "Statistical Abstract of Latin America, Volume 19", UCLA Latin American Centre Publications, University of California, Los Angeles, 1978.

CHAPTER TEN

# AN ANALYSIS OF GLOBAL CONSTRUCTION MARKETS : A MKIS APPROACH USING UN AND OTHER RELATED STATISTICS

## 10.1. THE STAGES INVOLVED

In developing the MKIS here, a descriptive approach has been adopted - one which Oliver (1986) has similarly ascribed to in generating important information such as market size and profiles. As Oliver (1986) notes, the major bulk of most marketing research studies had attempted to depict market characteristics through descriptive means. As a result, these may not necessarily delve into the issues of why and how certain phenomena were caused apart from noting that these did indeed occur. Keegan (1984) similarly notes that the strategic planning process for a multinational firm begins with an evaluation of the trends, opportunities and threats of the external environment which makes up the entire world. Since it would be extremely costly to commission a detailed assessment of all the countries in the world, a scanning programme can instead be instituted which can at least keep a company informed of worldwide market development trends.

In building up the MKIS for the analysis of global construction markets, the following procedural steps were taken :

1 In consultation with various UN and other official publications[1], 180 countries and territories were identified where statistical information relating to their respective construction industries were obtainable. Information sources for the analysis that follows were collated mainly from the UN Office in London, the Export and Marketing Intelligence Library of the Department of Trade and Industry, and the London Business School's Library. (Note : "countries and territories" will be referred to as "countries" throughout hereafter.)

2 From these sources, the value added (VA) by construction for each country between 1970 and 1984 inclusive were collated. 1970 serves as a convenient starting point because a pilot review of these sources revealed that prior to 1970, the data for many countries were, at best, incomplete. This also serves as a landmark turning point which precedes the two oil crises of the 1970s; events which undoubtedly have a tremendous impact on international construction activities. Similarly, because the data collection process had been carried out between February 1988 and June 1988, a decision was made to stop at 1984 since further up-to-date statistics for many countries were simply not available after 1984. Nonetheless, the effects of the global recession on worldwide construction which set in during the early 1980s are still covered. Depending on the stage of development and sophistication of each country's statistical agency, there appears to be a time lag of between two to four years before the data is made available in official sources. A fifteen years' period would be sufficient for the analysis of

short-term trends.

Thereupon, where necessary, values in local currencies were converted to United States Dollar (US$) equivalents using annual average exchange rates published by the IMF. This approach may not, in itself, be viewed in a favourable light, but given the circumstances, seems to be the best and only option opened to resolve the issues of exchange rate parities. As Keegan (1984) has pointed out, exchange rates equate, at best, the prices of internationally traded goods and services which do not necessarily reflect the prices of those goods and services which are not traded internationally but yet form the major bulk of the national product in most countries. In so far as the use of exchange rates is concerned, the real incomes between the less developed and the more developed countries may therefore be exaggerated consequently. Similarly, both Gilligan and Hird (1986) have observed that in recognition of these comparative problems, the UN's International Comparison Project (ICP) was consequently established in 1968 to develop further sophisticated methods for the derivations of more reliable and directly comparable estimates for both economic and national statistics. This project, undertaken jointly by the UN Statistical Office and the University of Pennsylvania with the support of the World Bank and other international, national and private institutions, continues today. With this background, it may be fair to maintain that a basis for comparison can be achieved following the procedures suggested here.

3 The world VA by construction for each year is then estimated by summing together the contributions from all the 180 countries. These are similarly expressed in millions of US$ for the fifteen years' period considered. The initial computations carried out were classified both globally and regionally.

4 Each country's percentage share of the world VA by construction for each year is then computed in turn by dividing its respective VA by construction with the global figure calculated in step (3) above. This was carried out for all the 180 countries for each year over the fifteen years' period. The summation for all the countries, therefore, equals one.

5 In effect, two sets of data are now available for all the countries; namely

   a. each country's annual VA by construction expressed in US$m over the fifteen years' period from 1970 to 1984, and

   b. each country's annual percentage share of the world VA by construction over the fifteen years' period from 1970 to 1984.

6 Using 1970 as the base year, the data sets described in step (5) above over the fifteen years' period are now transformed into indices, yielding in the process, two additional sets of weights derived from the initial computations undertaken thus far. These are :

   a. each country's annual VA by construction over the fifteen years' period

expressed as indices over the corresponding VA in 1970 established as the base year, and

b. each country's annual percentage share of the world VA by construction over the fifteen years' period expressed as indices over the corresponding percentage in 1970 established as the base year.

These weights serve to indicate both the absolute and relative growth rates for the construction market of each country over the fifteen years' period from 1970 to 1984.

7 Statistical computations, in the forms of time series regression analyses at 95% confidence intervals, were then performed for all the 180 countries in the data sets obtained in steps (5) and (6) above. These attempt to correlate time, expressed in yearly intervals between 1970 and 1984, linearly with

a. each country's annual VA by construction expressed in US$m,

b. each country's annual percentage share of the world VA by construction,

c. each country's annual VA by construction expressed as indices over the corresponding VA in 1970 established as the base year, and

d. each country's annual percentage share of the world VA by construction expressed as indices over the corresponding percentage in 1970 established as the base year.

In all, a total of 720 time series computations were made. These provided the regression functions ($y = a + bx$) and coefficients of correlation (r) required for the analyses. For each time series function, the value of b in the regression function, $y = a + bx$, is of special interest because it measures the rate of change or trend for each set of variables over time. The associated coefficient of correlation, r, on the other hand, sustains or rejects the calculated trend by measuring the variables' closeness of fit or association. The standardisation of this computational procedure provides the basis where comparisons between trends may be made. Hence, both steps (7a) and (7b) express the trends in regressional absolute terms. Similarly, both steps (7c) and (7d) above measure the trends in regressional relative terms.

8 Because of the derivative effects and the use of a common data base collated from step (2) above, the two data sets in steps (5a) and (5b) yielded identical correlation coefficients with the two data sets from steps (6a) and (6b) respectively after regressional computations were carried out.

The correlation coefficients which resulted from steps (7a) and (7c) above show that their values are almost identical, if not for rounding-up discrepancies.

Similarly, the correlation coefficients which resulted from steps (7b) and (7d) above show that their r values are also almost identical, again if not for rounding-up errors.

The findings of this exercise will now be presented where the expositions will be disaggregated progressively. The global trends will first be highlighted, followed by analyses at the level of the economies, regional level, political level and, lastly, countries level.

## 10.2. ANALYSIS AT GLOBAL LEVEL

Turin (1973), in the early 1970s, had investigated the link between construction and economic development. Based on statistical data procured from the UN, Turin (1973) had also proceeded to estimate the global VA by construction for 1970. More than fifteen years have elapsed since Turin's (1973) findings were first publicised. The setting up of an international MKIS here is indirectly an extension of and in response to Turin's (1973) earlier works. As the investigations will reveal in greater details later, the general findings will accord very closely with Turin's (1973) results where the percentage shares of the world VA by construction will be classified, in descending order of proportionalities, under the developed market economies, the "centrally planned economies" of Eastern Europe, other developing market economies and the centrally planned economies of Asia. However, there are some slight differences with Turin's (1973) results for 1970, generated perhaps by the incomplete and unsophisticated information sources that were available to Turin (1973) at that time.

Some broad order of magnitudes may be gleaned from Table 10.1. Taking 1984 as a case in point, every one percent share of the global VA in construction would amount to approximately US$7220.52m, a figure which may easily surpass the national income of some of the smaller and less developed countries. An expression of a country's share of the world VA by construction in percentage terms is, therefore, highly sensitive. Figures 10.1 and 10.2 show the world VA by construction in absolute terms and their annual rates of growth over the preceding year respectively. In absolute terms, the global volume appears to be increasing annually at an average incremental growth rate of about 9.75% over the fifteen years' period considered. The annual growth rates are computed by dividing the estimated global VA in construction for a particular year by the corresponding value for the preceding year. Two phenomena have, however, been noticeable.

Firstly, the higher rates of growth seemed to follow closely the aftermath of the two oil crises in 1973 and 1978. Three arguments may be offered here as plausible explanations for the immediate surge in construction activities after the hike in oil prices. Firstly, the new-found wealth of the oil-rich countries was used to further their cause, in building additional petroleum-related infrastructural facilities to boost production capacities, and in constructing the basic necessities so crucial for their previously lack-lustre economic development. Much has been written and documented elsewhere about the intensive construction programmes carried out in

| Year | Estimated global VA by construction (US$m) | Estimated growth rates over preceding year (%) |
|---|---|---|
| 1970 | 203777.74 | n.a. |
| 1971 | 230378.22 | 13.05 |
| 1972 | 267878.74 | 16.28 |
| 1973 | 330177.93 | 23.26 |
| 1974 | 363463.68 | 10.08 |
| 1975 | 409505.50 | 12.67 |
| 1976 | 440221.76 | 7.50 |
| 1977 | 492937.45 | 11.97 |
| 1978 | 593451.21 | 20.39 |
| 1979 | 678918.76 | 14.40 |
| 1980 | 753437.98 | 10.98 |
| 1981 | 724174.95 | -3.88 |
| 1982 | 719398.12 | -0.66 |
| 1983 | 709488.15 | -1.38 |
| 1984 | 722052.75 | 1.77 |
| | Average growth rate = | 9.75 |

TABLE 10.1. ESTIMATED GLOBAL VA BY CONSTRUCTION AND GROWTH RATES OVER PRECEDING YEARS

these countries, particularly in the Middle East. Secondly, as both Demacoupolos and Moavenzadeh (1985) have pointed out, a high proportion of the surplus petro-dollars of these countries were recycled via international and commercial banks for property and economic development in other non-OPEC countries. This availed the less developed and poorer countries with the opportunities so critically required for their construction projects which they may otherwise not have commissioned themselves for lack of the necessary financial resources. The wealth of the oil-producing countries has, therefore, created spin-offs to non oil-producing developing countries during this era through the international banking and finance system. The construction sector had also benefited as a result. Thirdly, and more importantly, it may be hypothesised that the increases in oil prices have spontaneously activated counter-measures taken in response by non oil-producing countries to both reduce their reliance on and to cut back their consumption of oil. As Moavenzadeh (1984) has noted,

> "Two overriding development issues of the decade, energy and debt, have profoundly affected and will likely to continue to affect construction demand. In countries lacking petroleum but still with sufficient means and large energy needs, the changing nature of world energy patterns may well create a new cluster of demands for large-scale, complex, alternative energy production facilities such as hydroelectric or nuclear power, and synthetic fuel plants (Moavenzadeh, 1984:23)."

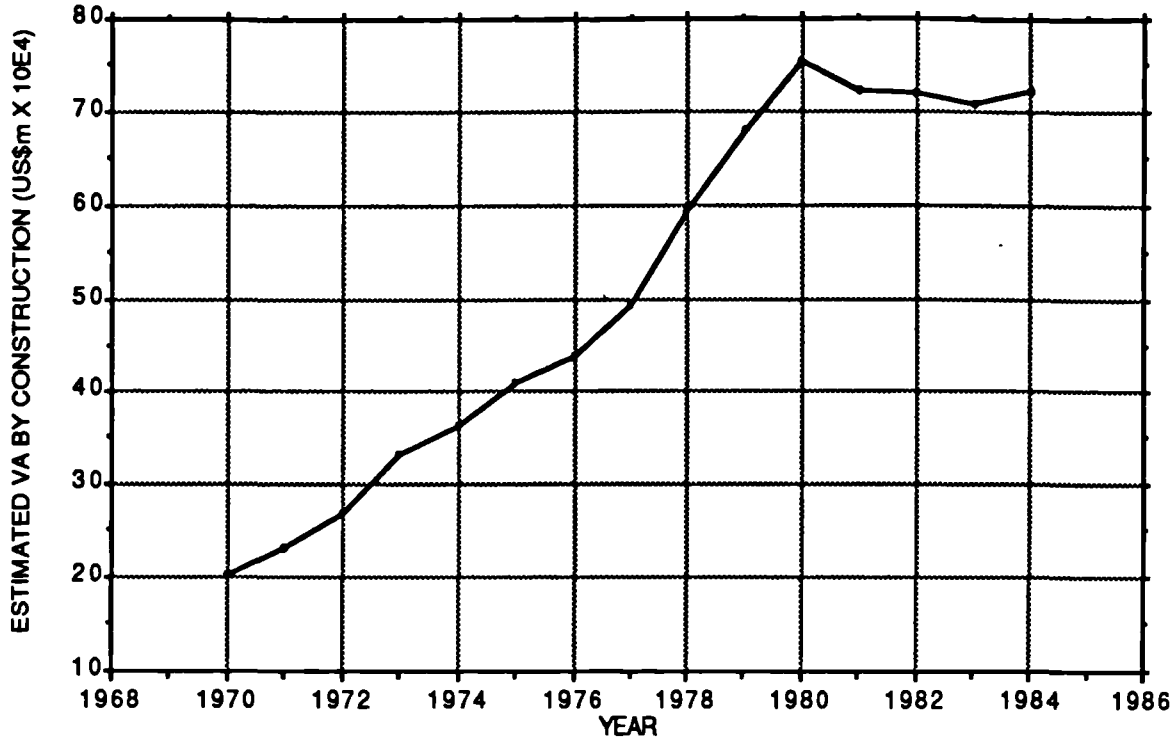



FIGURE 10.1. ESTIMATED GLOBAL VA BY CONSTRUCTION BETWEEN 1970 AND 1984

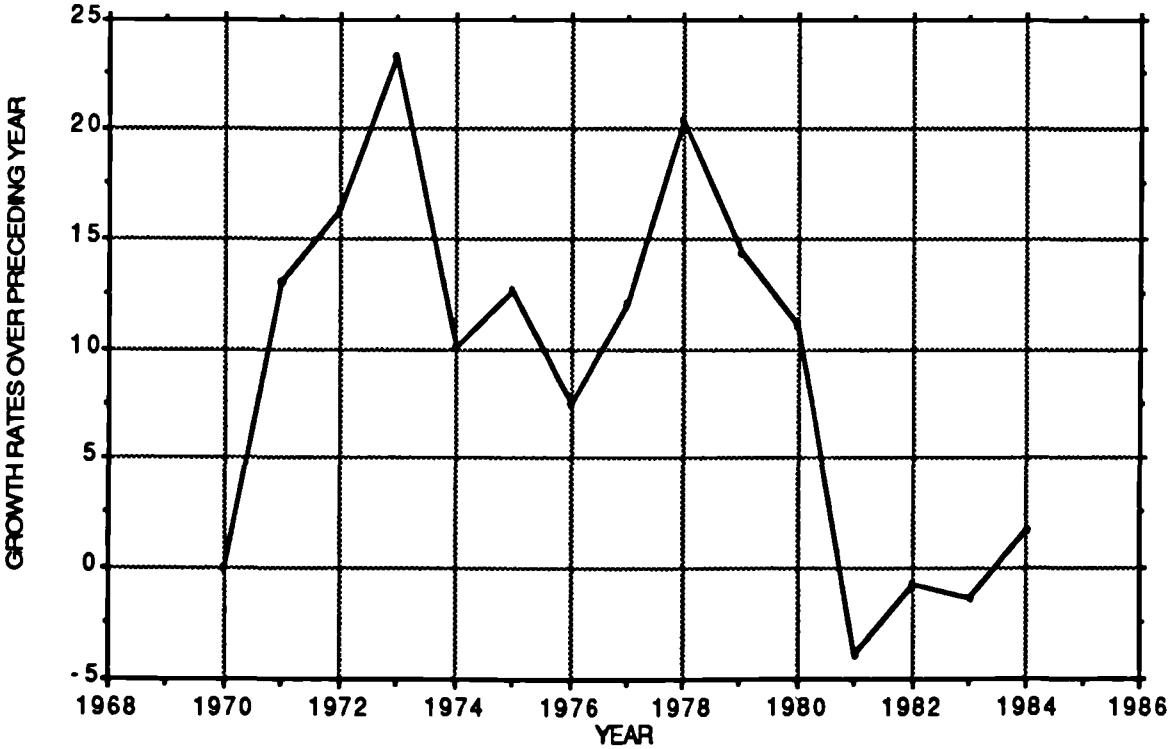



FIGURE 10.2. ANNUAL GROWTH RATES FOR WORLD VA BY CONSTRUCTION OVER PRECEDING YEAR

Although there are doubts as to whether these countries can response so quickly to the crises as to generate the immediate upsurges suggested by the results here for both 1973 and 1978, it may nevertheless be worthwhile to leave this optional explanation open for future research work to delve in greater details. For the moment, much of the problem-solving propositions adopted by the non oil-producing countries appear to point towards construction-related activities which include the upgrading of existing buildings to improve their energy-effectiveness and the construction of new facilities which rationalise and provide alternative sources of energy such as nuclear power stations, dams for generating hydroelectricity, and improved distribution networks for reducing transportation costs.

The second phenomenon relates to the spontaneous reactions of the world construction industries to the worldwide economic recession which sets in during the early 1980s. In absorbing the recessionary doldrums, one would expect construction activities to slow down, if not to grind to a halt altogether. As depicted in Figures 10.1 and 10.2, these can be reflected by the negative growth rates which coincided with the earlier part of the 1980s.

To thoroughly examine the cause-and-effect, their structural changes and why these have been so on a global scale would be a formidable, if not impossible task in view of the enormity of the exercise. There are just simply too many factors which need to be considered, eg., the Iran-Iraq war, the occasional civil wars and strifes in various parts of the world, receding oil prices, rising value of the Japanese Yen, the chronic trade deficits of some of the major power blocs, the recent open-door and liberalisation policies of China and the USSR, natural catastrophes and disasters, etc., among many others. For the same reason, both the UNIDO (1985) and Hague (1984), as noted in the preceding chapter, have urged researchers to stop at this apparent level and not to proceed any further no matter how desirable this may appear initially. To do otherwise would only result in sub-optimal and unfruitful probes at a superficial level.

## 10.3. ANALYSIS BASED ON TYPES OF ECONOMIES

The following findings relate to twenty-six developed market economies, eight socialist countries of Eastern Europe, four socialist countries of Asia and one hundred and forty-two other developing countries and territories. The classifications adopted are based on the UN's "Handbook of International Trade and Development Statistics (1985 Supplement)"[2]. The results, which highlight the economies' estimated VA by construction, their annual rates of growth and percentage shares of the global construction volume, are shown in Tables 10.2 to 10.5 and Figures 10.3 to 10.6.

### 10.3.1. ESTIMATED VALUE ADDED BY CONSTRUCTION

These are classified in Table 10.2 and depicted graphically in Figure 10.3 where the absolute trends for all the four economies are shown. In Figure 10.3, it can be seen

| Year | Developed Market Economies | Socialist Countries of Eastern Europe | Socialist Countries of Asia | Other Developing Countries & Territories |
|---|---|---|---|---|
| 1970 | 141106.30 | 39290.79 | 3774.78 | 19605.86 |
| 1971 | 159139.51 | 45272.55 | 4166.85 | 21799.31 |
| 1972 | 188461.80 | 49892.68 | 4484.29 | 25039.97 |
| 1973 | 234630.71 | 59467.03 | 5297.37 | 30782.82 |
| 1974 | 257280.67 | 60275.73 | 5528.65 | 40378.63 |
| 1975 | 285244.74 | 65801.80 | 6201.55 | 52257.41 |
| 1976 | 298853.79 | 68273.99 | 7046.63 | 66047.35 |
| 1977 | 334227.37 | 72750.17 | 7906.72 | 78053.20 |
| 1978 | 409790.52 | 82178.16 | 8518.99 | 92963.54 |
| 1979 | 473346.91 | 86948.45 | 9523.87 | 109099.53 |
| 1980 | 519577.61 | 84904.93 | 11111.70 | 137843.74 |
| 1981 | 487956.32 | 84612.60 | 10058.79 | 141547.24 |
| 1982 | 471294.97 | 91251.34 | 12315.38 | 144536.43 |
| 1983 | 470267.19 | 93982.35 | 13100.70 | 132137.91 |
| 1984 | 480841.64 | 97350.76 | 13867.75 | 129992.60 |

Notes :

1 Developed Market Economies : Australia, Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States and Yugoslavia.

2 Socialist Countries of Eastern Europe : Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania and USSR.

3 Socialist Countries of Asia : China, North Korea, Mongolia and Vietnam.

4 Other Developing Countries and Territories : All other countries and territories not mentioned above.

TABLE 10.2. ESTIMATED VA BY CONSTRUCTION (US$m) BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

that the growth trend for the developed market economies parallels the global trend shown earlier in Figure 10.1 very well. In both instances, there have been a sudden decline after 1980 despite a consistently positive growth since 1970. As will be seen later, this seems to be structurally logical because of the developed market economies' dominant share of the world construction volume. The decline in both cases appears to be an instantaneous response to the worldwide recession which began in 1980. It looks as though the construction works in the developed market economies, because of their more advanced nature and higher rates of completion to-date, may be postponed at short notice. On the other hand, unlike the developed countries, the same leeway may not be available for developing market economies where the desirable construction works still lag behind their aspired economic

developments in many ways. Thus, despite the adverse macroeconomic environment, it may still remain crucial for the developing countries to push on and complete their on-going projects as scheduled. As Stone (1976) notes,

> "The amplitude of the cycles of construction tends to be greater than those for most other industries. This is because new work and even to some extent maintenance work can usually be postponed in times of financial difficulty. ... Contracts cannot usually be suspended immediately. The current stage of the work must be brought to an orderly end or the ultimate costs may be raised considerably (Stone, 1976:38)."

| Year | Developed Market Economies | Socialist Countries of Eastern Europe | Socialist Countries of Asia | Other Developing Countries & Territories |
|---|---|---|---|---|
| 1970 | n.a. | n.a. | n.a. | n.a. |
| 1971 | 12.78 | 15.22 | 10.39 | 11.19 |
| 1972 | 18.43 | 10.21 | 7.62 | 14.87 |
| 1973 | 24.50 | 19.19 | 18.13 | 22.93 |
| 1974 | 9.65 | 1.36 | 4.37 | 31.17 |
| 1975 | 10.87 | 9.17 | 12.17 | 29.42 |
| 1976 | 4.77 | 3.76 | 13.63 | 26.39 |
| 1977 | 11.84 | 6.56 | 12.21 | 18.18 |
| 1978 | 22.61 | 12.96 | 7.74 | 19.10 |
| 1979 | 15.51 | 5.80 | 11.80 | 17.36 |
| 1980 | 9.77 | -2.35 | 16.67 | 26.35 |
| 1981 | -6.09 | -0.34 | -9.48 | 2.69 |
| 1982 | -3.41 | 7.85 | 22.43 | 2.11 |
| 1983 | -0.22 | 2.99 | 6.38 | -8.58 |
| 1984 | 2.25 | 3.58 | 5.86 | -1.62 |
| Mean Growth | 9.52 | 6.85 | 9.99 | 15.11 |

Note : For details of countries, refer to notes in Table 10.2.

TABLE 10.3. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

This perhaps accounts for the positive growth trend of the developing market economies which continues until 1982, after which it starts to decline. This shows a time lag of about two years for completion of their projects when, in effect, both the developed market economies and the socialist countries of Eastern Europe have already cut back on their construction works in line with the global recession which

began in 1980.

10.3.2. ANNUAL GROWTH RATES OVER PRECEDING YEAR

The annual growth rates for all the economies are computed by dividing the

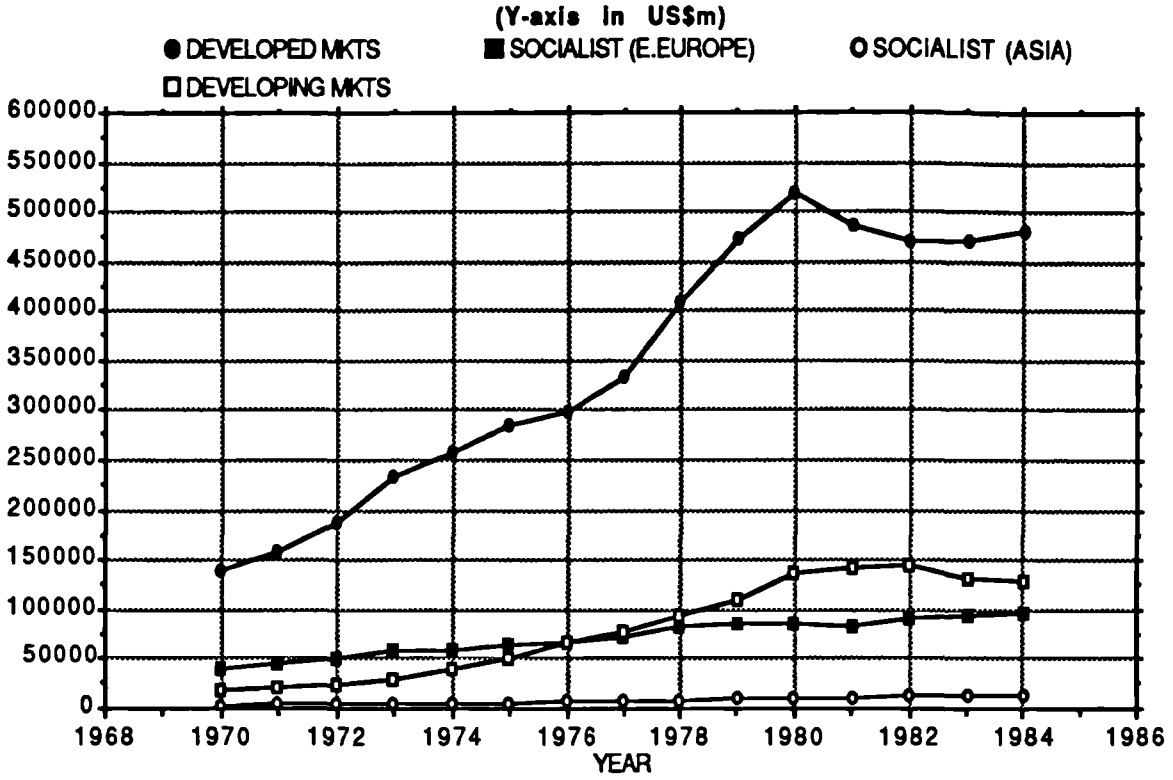



FIGURE 10.3. ESTIMATED VA BY CONSTRUCTION (US$m) BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

estimated VA in construction for a particular year by the corresponding value for the preceding year. These are tabulated in Table 10.3 and plotted graphically in Figure 10.4. Table 10.3 indicates the highest average growth rate of 15.11% for the developing market economies, followed by the socialist countries of Asia (9.99%), developed market economies (9.52%) and the socialist countries of Eastern Europe (6.85%) in descending order between 1970 and 1984. The attainment of a high growth rate by the developing market economies seems to suggest their persistence in achieving developmental progress through construction when compared with both the developed market economies and the socialist countries of Eastern Europe which are already highly industrialised nations. The same reasoning may perhaps also account for the four developing socialist countries of Asia with the second highest average growth rate of 9.99%.

10.3.3. PERCENTAGE SHARES OF WORLD CONSTRUCTION VOLUME

The percentage share results, classified according to types of economies, are shown in Tables 10.4 to 10.5 and Figures 10.5 to 10.6. However, before proceeding to a detailed exposition of these results, some of the statistical functions which are used

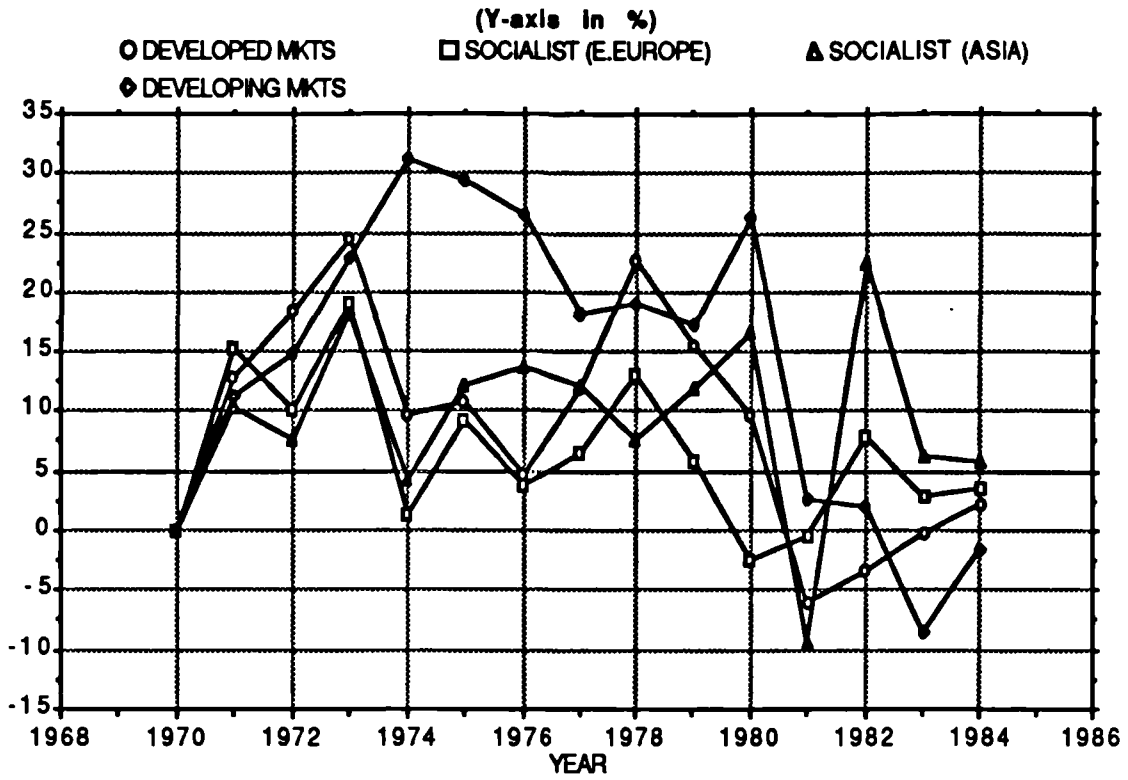



FIGURE 10.4. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA IN CONSTRUCTION BETWEEN 1970 AND 1984 ; CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

here have to be explained first. The simple arithmetic average for an array of variables is referred to as the mean (x). In adopting the statistical Theorem of Central Tendency, the standard deviation (s) denotes the dispersion of this array about the arithmetic mean (x). The coefficient of variation (CoV) goes a step further to measure the dispersal of the standard deviation relative to the mean (i.e. CoV = $^{s}/_{x}$ X 100%), expressed as a percentage.

Figure 10.5 shows the percentage shares of global VA in construction according to four types of economies. It can be observed that the share of the developed market economies is in a stage of very gradual decline while that of the socialist countries of Asia has remained relatively unchanged. On the other hand, the socialist countries of Eastern Europe and the other developing market economies have experienced contrasting effects, with the former sliding incessantly between 1971 and 1980, and the latter steadily climbing between the same period until 1982. Figure 10.5 shows 1976 as the turning point when the total percentage share of 142 developing countries and territories just equalled that of 8 East European socialist countries. Thereafter, the gap between the two appeared to widen further until 1982 when it began to close gradually again. The proportional impact of each economy's percentage share of the global construction VA can be gleaned from Figure 10.6. These are given in further details in Tables 10.4 and 10.5. The computations of Table

10.4 are summarised in Table 10.5.

As depicted in Table 10.5, based on the mean values calculated from data for the period between 1970 and 1984, it can be seen that the developed market economies contributed about 68.62% to the total global construction volume at the higher end of

| Year | Developed Market Economies | Socialist Countries of Eastern Europe | Socialist Countries of Asia | Other Developing Countries & Territories |
|---|---|---|---|---|
| 1970 | 69.25 | 19.28 | 1.85 | 9.62 |
| 1971 | 69.08 | 19.65 | 1.81 | 9.46 |
| 1972 | 70.35 | 18.63 | 1.67 | 9.35 |
| 1973 | 71.06 | 18.01 | 1.60 | 9.32 |
| 1974 | 70.79 | 16.58 | 1.52 | 11.11 |
| 1975 | 69.66 | 16.07 | 1.51 | 12.76 |
| 1976 | 67.89 | 15.01 | 1.60 | 15.00 |
| 1977 | 67.80 | 14.76 | 1.60 | 15.83 |
| 1978 | 69.05 | 13.85 | 1.44 | 15.66 |
| 1979 | 69.72 | 12.81 | 1.40 | 16.07 |
| 1980 | 68.96 | 11.27 | 1.47 | 18.30 |
| 1981 | 67.38 | 11.68 | 1.39 | 19.55 |
| 1982 | 65.51 | 12.68 | 1.71 | 20.09 |
| 1983 | 66.28 | 13.25 | 1.85 | 18.62 |
| 1984 | 66.59 | 13.48 | 1.92 | 18.00 |
| x = | 68.62 | 15.17 | 1.62 | 14.58 |
| s = | 1.67 | 2.77 | 0.17 | 3.99 |
| CoV = | 2.43 | 18.27 | 10.66 | 27.38 |

TABLE 10.4. ESTIMATED VA IN CONSTRUCTION EXPRESSED AS A PERCENTAGE OF GLOBAL VOLUME BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

the scale, while at the lower end, the socialist countries of Asia made up approximately 1.62%. In between this spectrum, while an estimated 15.17% came from the socialist countries of Eastern Europe, the remaining 14.58% was made up by the other developing countries and territories. The establishment of a mean percentage share for the developing countries and territories between 1970 and 1984 has provided sufficient support for Edmonds and Miles (1984) who have estimated that

> "The share of the developing nations, comprising two-thirds of the world's population, in world construction output is of the order of 15 per cent (Edmonds and Miles, 1984:2)."

These show that the major bulk of the work, if construction activities are considered in global terms, comes from the developed world. Although there is evidence to suggest that the larger construction markets in VA terms are to be found in the developed countries, this, however, does not necessarily reflect an unusually

| Types of Economies | No. of countries considered in analysis | Mean % share of global VA by construction | Standard deviation of mean % share | Coefficient of variation |
|---|---|---|---|---|
| Developed market economies | 26 | 68.62 | 1.67 | 2.43 |
| Socialist countries of Eastern Europe | 8 | 15.17 | 2.77 | 18.27 |
| Socialist countries of Asia | 4 | 1.62 | 0.17 | 10.66 |
| Other developing countries & territories | 142 | 14.58 | 3.99 | 27.38 |
| Total : | 180 | | | |

TABLE 10.5. ESTIMATED VA IN CONSTRUCTION EXPRESSED AS A PERCENTAGE OF GLOBAL VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

attractive prospect for firms from the Third World because of the relatively advanced sophistication and competitiveness possessed by the developed countries themselves. As reports elsewhere have shown[3], international construction activities are predominately concentrated in the less developed countries where their indigeneous construction capacities have yet to be realised to their greatest potentials. Considered in totality, this would seem to suggest that opportunities may, in effect, take precedence over absolute volume. The incursion of construction firms from the developed countries into other less developed countries often takes place under two conditions. Firstly, the opportunities may present themselves when the projects involve sophisticated technologies which are beyond the capabilities of the developing countries' indigeneous contracting industries. Secondly, the entry for firms from the developed world is also eased if the indigeneous contracting capacities of developing countries cannot cope with the expanded workload of ambitious construction programmes which are hastily implemented at short notice. This

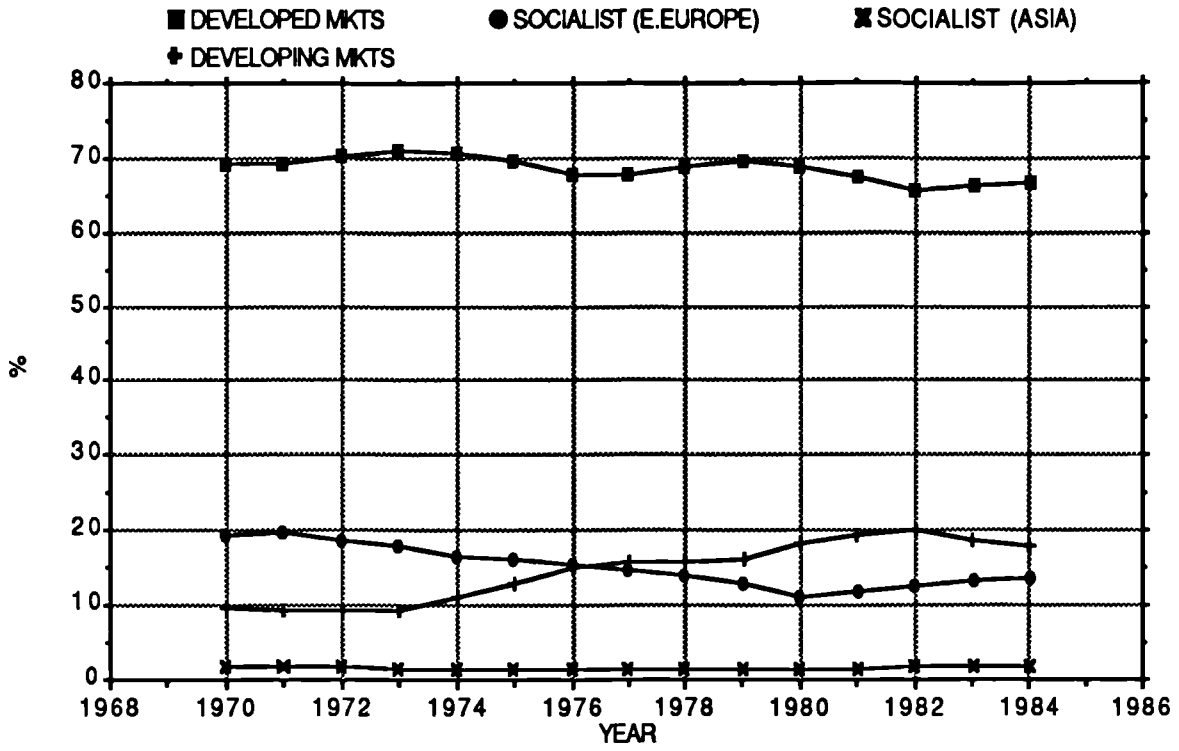



FIGURE 10.5. PERCENTAGE SHARES OF ESTIMATED GLOBAL VA IN CONSTRUCTION : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

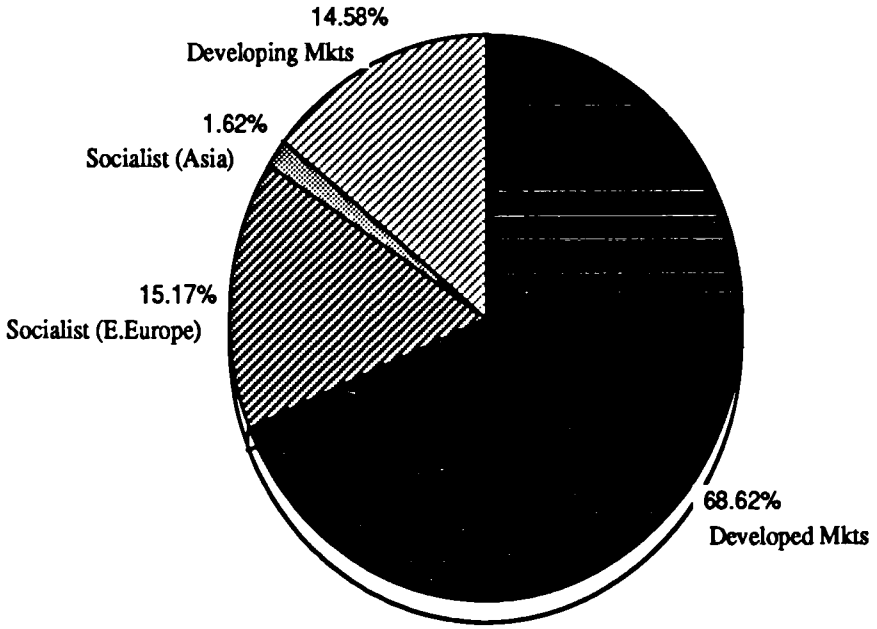



FIGURE 10.6. MEAN PERCENTAGE SHARE OF WORLD CONSTRUCTION VA BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO TYPES OF ECONOMIES

perhaps explains why a frenzied level of interest and international construction activities have frequently been maintained in developing countries and territories although the total work here constitutes only about one-seventh of the entire world construction volume. Existing records have also shown intense competition among contracting firms from different nationalities, mainly from the developed countries, operating in these areas[3].

Despite the twenty-odd countries which go to make up the developed world, nevertheless, a major share of the global construction volume has consistently been derived from them along with a standard deviation of about ± 1.67% over the fifteen years' period considered. The corresponding figures for the socialist countries of Eastern Europe, the socialist countries of Asia, and the other developing countries and territories are estimated to be ± 2.77%, ± 0.17% and ± 3.99% respectively. As Table 10.4 indicates, the construction share of the Third World countries appears to be increasing steadily over the period considered although there is every indication that the volatility here is more significant than the other economies as indicated by a higher standard deviation (± 3.99%). Coefficients of variation computed for the four sets of economies, likewise, show similar proximities. The total construction volume in the developed market economies appears to display a lower level of turbulence than the developing economies over the fifteen years' period considered. Again, this might offer an explanation as to why the latter have generated more attention from international construction firms than the former. It would seem that the market volumes of construction within the developed economies, in relation to the global volume, are more stable and their variations less unsettling nor significant. This provides the ideal atmosphere where pre-planning can take place and forecasts concerning peaks and troughs made. Accordingly, a local contracting firm in a developed country would be afforded some reasonably reliable opportunities to both predict business trends and to inculcate its own role within the industry. The path it has to tread or intends to take, can be recognised and mapped much more readily. In contrast to the developing countries where their fluctuations in volume may generally be more violent, contracting firms in the relatively stable construction markets of the developed world would therefore tend to enjoy lower returns commensurate with the minimal risks involved. A higher level of risks is normally associated with wide fluctuations which correspondingly bring forth greater profit expectations. The economic uncertainties and operating risks in the developing countries in volume terms, as indicated by the higher coefficient of variation (27.38%), would appear attractive to those firms which are seeking larger operating margins outside their own local industries. This perhaps accounts for one among other reasons why so much interest has been generated in the construction markets of developing countries, particularly when firms from the developed countries are

plagued by localised problems in their own markets. On the other hand, the gradual evolution of a buyer's market has meant that those firms who are desirous of operations in most of the developing countries have now to consider the provision of financial packages so often demanded by host countries starved of cash or constrained by foreign exchange restrictions.

Because the socialist countries of Eastern Europe are also predominately developed entities, one can therefore appreciate the extent of the percentage share accruable to the developed countries of the world. In summing up the mean percentage shares of both the developed market economies and the socialist countries of Eastern Europe for the fifteen years' period, it would appear that, together, they account for approximately 84% of the world total. This constitutes a figure which is not too far off from Turin's (1973) estimate of nearly 90% made in the early 1970s for 1970 alone.

## 10.4. ESTIMATES BASED ON REGIONAL CLASSIFICATIONS

The data culled is then disaggregated further into 19 regional areas which include all the 180 countries and territories. The categorisation here is based on the "Standard Country or Area Codes for Statistical Use"[4] adopted by the UN (See Appendix 1 for detailed listings).

### 10.4.1. ESTIMATED VALUE ADDED BY CONSTRUCTION

The estimated regional VA in construction between 1970 and 1984 are shown in Table 10.6. Over the fifteen years' period, North America has been revealed as the largest market, followed by Western Europe and East Asia, with estimated VA of US$1736718.83m, US$1348541.15m and US$1151011.12m respectively. The massive market of the United States in North America, the congregation of highly industrialised countries in Western Europe and the significant presence of Japan in East Asia are the reasons which account for their respective positions at the top three places of the league table.

The data set in Table 10.6 is then divided accordingly into four main regional classifications as follows :

1. Europe and USSR (Figure 10.7),
2. Asia and Pacific (Figure 10.8),
3. America (Figure 10.9), and
4. Africa (Figure 10.10).

Figures 10.7 to 10.10 generally show an increase in regional construction volumes with the passage of time. However, there are also signs of a downward trend for most regions after 1980 and beyond, indicating the macro influences on construction caused by the global recession which set in at about this time.

Figure 10.7 shows Western Europe to be the largest market with a clear lead over the USSR, Southern Europe, Northern Europe and Eastern Europe in second, third, fourth and fifth positions respectively. While there have been a decline in construction

| Year | East Africa | Middle Africa | North Africa | South Africa | West Africa | Caribbean America | Central America | North America | South America |
|---|---|---|---|---|---|---|---|---|---|
| 1970 | 649.85 | 248.41 | 1338.62 | 749.29 | 1039.88 | 1226.74 | 2119.29 | 53917.76 | 5194.70 |
| 1971 | 761.17 | 297.88 | 1493.31 | 871.52 | 1442.17 | 1401.85 | 2043.22 | 59666.12 | 6130.59 |
| 1972 | 903.02 | 354.40 | 1998.38 | 1038.57 | 1812.20 | 1542.18 | 2632.98 | 66119.44 | 6716.52 |
| 1973 | 1135.81 | 462.91 | 2628.22 | 1494.06 | 2202.62 | 1656.50 | 3192.49 | 78661.59 | 8196.99 |
| 1974 | 1248.86 | 611.35 | 3548.50 | 1904.55 | 2686.36 | 1864.21 | 4365.93 | 85063.22 | 11518.89 |
| 1975 | 1284.21 | 682.24 | 4845.68 | 1927.54 | 3756.39 | 2078.65 | 5824.81 | 88765.64 | 12489.51 |
| 1976 | 1114.64 | 1115.96 | 5827.66 | 1790.38 | 5075.76 | 2008.29 | 6209.77 | 99679.85 | 15034.89 |
| 1977 | 1228.40 | 848.35 | 7070.69 | 1832.74 | 5863.98 | 2234.98 | 5379.43 | 111183.03 | 16644.53 |
| 1978 | 1354.85 | 750.12 | 8836.49 | 1887.17 | 6361.20 | 2490.12 | 6990.86 | 128056.68 | 20186.84 |
| 1979 | 1683.04 | 891.42 | 9749.27 | 2168.47 | 7106.92 | 2539.16 | 9458.02 | 144840.53 | 25462.17 |
| 1980 | 1950.65 | 1040.50 | 11143.35 | 2930.12 | 8773.03 | 3136.56 | 13155.78 | 152623.93 | 34151.08 |
| 1981 | 1711.23 | 1068.88 | 10686.65 | 3449.25 | 8156.38 | 3265.30 | 17798.05 | 156145.88 | 29765.76 |
| 1982 | 1617.93 | 1178.37 | 12183.73 | 3127.94 | 6502.64 | 3894.10 | 11083.77 | 157921.56 | 27570.21 |
| 1983 | 1536.04 | 1113.90 | 12231.58 | 3399.87 | 5822.77 | 4200.17 | 8142.09 | 167540.66 | 18742.55 |
| 1984 | 1549.53 | 1071.53 | 12710.30 | 2366.17 | 5543.92 | 4096.93 | 9546.98 | 186532.94 | 16805.78 |
| Total - | 19729.23 | 11736.22 | 106292.43 | 30937.64 | 72146.22 | 37635.74 | 107943.47 | 1736718.85 | 254611.01 |

| Year | East Asia | South Asia | South-East Asia | West Asia | East Europe | North Europe | South Europe | West Europe | Oceania | USSR |
|---|---|---|---|---|---|---|---|---|---|---|
| 1970 | 20146.49 | 3817.78 | 1617.38 | 2142.72 | 9905.84 | 13643.94 | 14039.68 | 39255.13 | 3431.62 | 29292.85 |
| 1971 | 23530.83 | 4102.35 | 1705.03 | 2224.76 | 11268.26 | 15383.05 | 14930.81 | 45290.98 | 3931.40 | 33903.15 |
| 1972 | 30796.95 | 4239.72 | 1940.78 | 2726.47 | 11675.76 | 19171.28 | 17280.32 | 54210.35 | 4613.68 | 38106.02 |
| 1973 | 42642.15 | 4837.77 | 2457.84 | 3578.47 | 13394.00 | 23425.46 | 21549.72 | 66393.83 | 6316.30 | 45951.52 |
| 1974 | 47169.95 | 5570.81 | 3374.03 | 5024.89 | 14260.13 | 25370.13 | 26103.96 | 69789.03 | 8107.42 | 45881.47 |
| 1975 | 56299.23 | 8232.70 | 4228.55 | 7888.30 | 15360.55 | 28451.21 | 29759.58 | 78767.56 | 8569.31 | 50294.24 |
| 1976 | 60122.85 | 10509.85 | 5361.02 | 12095.09 | 17055.95 | 28012.19 | 28669.88 | 80900.87 | 8571.56 | 51064.84 |
| 1977 | 70401.82 | 13515.85 | 6432.83 | 15918.43 | 17672.30 | 29639.34 | 32893.22 | 90976.04 | 8284.80 | 54917.67 |
| 1978 | 100609.56 | 14057.67 | 7364.73 | 18796.97 | 19662.23 | 35944.75 | 39318.52 | 109414.60 | 9024.02 | 62342.64 |
| 1979 | 110155.93 | 13724.34 | 8692.20 | 21984.07 | 19584.77 | 44132.44 | 49860.47 | 130230.88 | 9480.42 | 67176.30 |
| 1980 | 115150.19 | 17255.24 | 11248.83 | 27913.37 | 19153.90 | 51326.46 | 56092.70 | 149842.99 | 10958.76 | 65590.54 |
| 1981 | 122480.43 | 17303.44 | 12983.73 | 30825.23 | 17556.90 | 45980.76 | 50893.57 | 115209.72 | 12002.48 | 66889.87 |
| 1982 | 118033.81 | 19038.15 | 14635.44 | 37687.83 | 21563.24 | 42630.09 | 51151.37 | 108403.94 | 11656.41 | 69519.76 |
| 1983 | 115657.92 | 25414.58 | 14345.85 | 31402.66 | 21702.53 | 40682.76 | 47618.72 | 107191.60 | 10640.90 | 72100.31 |
| 1984 | 117813.01 | 22903.51 | 14334.91 | 31500.27 | 22830.59 | 39606.76 | 44843.09 | 102663.63 | 10998.31 | 74335.33 |
| Total - | 1151011.12 | 184523.76 | 110723.15 | 251709.53 | 252646.95 | 483400.62 | 525005.61 | 1348541.15 | 126587.39 | 827366.51 |

TABLE 10.6. ESTIMATED VA BY CONSTRUCTION (US$m) BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO REGIONS

volumes in Western, Southern and Northern Europe after 1980, the socialist bloc of Eastern Europe and the USSR seemed to have an unabated upward trend, apart from a slight dip in Eastern Europe between 1980 and 1981, following the recession of the early 1980s.

As Figure 10.8 subtly reveals, the presence of Japan in East Asia makes it the largest regional market in the Asia and Pacific region. West Asia, which consists of the

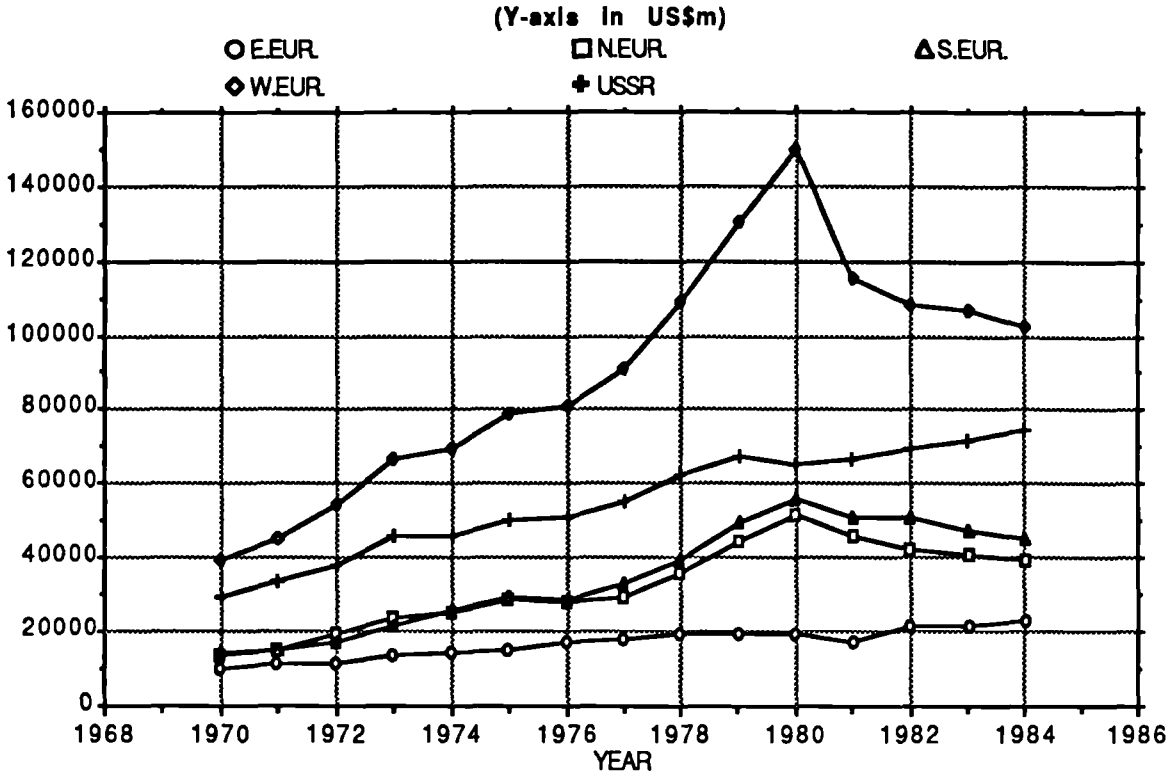



FIGURE 10.7. ESTIMATED VA BY CONSTRUCTION (US$m) ; CLASSIFIED ACCORDING TO REGIONS - EUROPE AND THE USSR

oil-rich countries of the Middle-East, takes second position but nevertheless appears to be on the path of a downward trend since 1982. South Asia, Southeast Asia and the Oceania take third, fourth and fifth positions respectively as of 1984. The worldwide recessionary effects of the early 1980s seemed to have either a negligible or a lagged impact on the various regions within Asia and the Pacific.

The clear domination by the North American market in the American region is also evident in Figure 10.9. The strength of this market can be seen in both its absolute volume and its unreceding growth throughout the fifteen years' period considered. It is interesting to note the gradual ascent of the North American market without any significant decline unlike the leaders of all the other main regions. The second largest market in the American region lies in South America which, as Figure 10.9 shows, is very much smaller than its counterpart in North America. Central America constitutes the third largest market, tailed closely by Caribbean

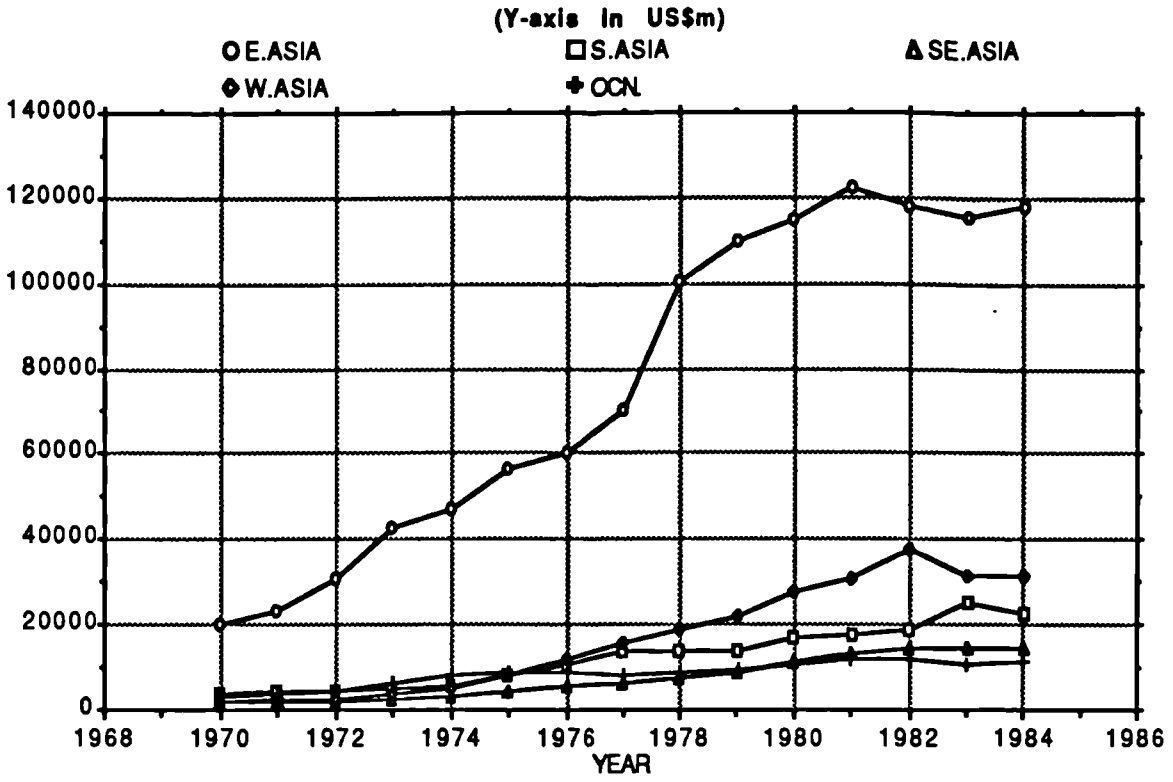



FIGURE 10.8. ESTIMATED VA BY CONSTRUCTION (US$m) : CLASSIFIED ACCORDING TO REGIONS : ASIA AND THE PACIFIC

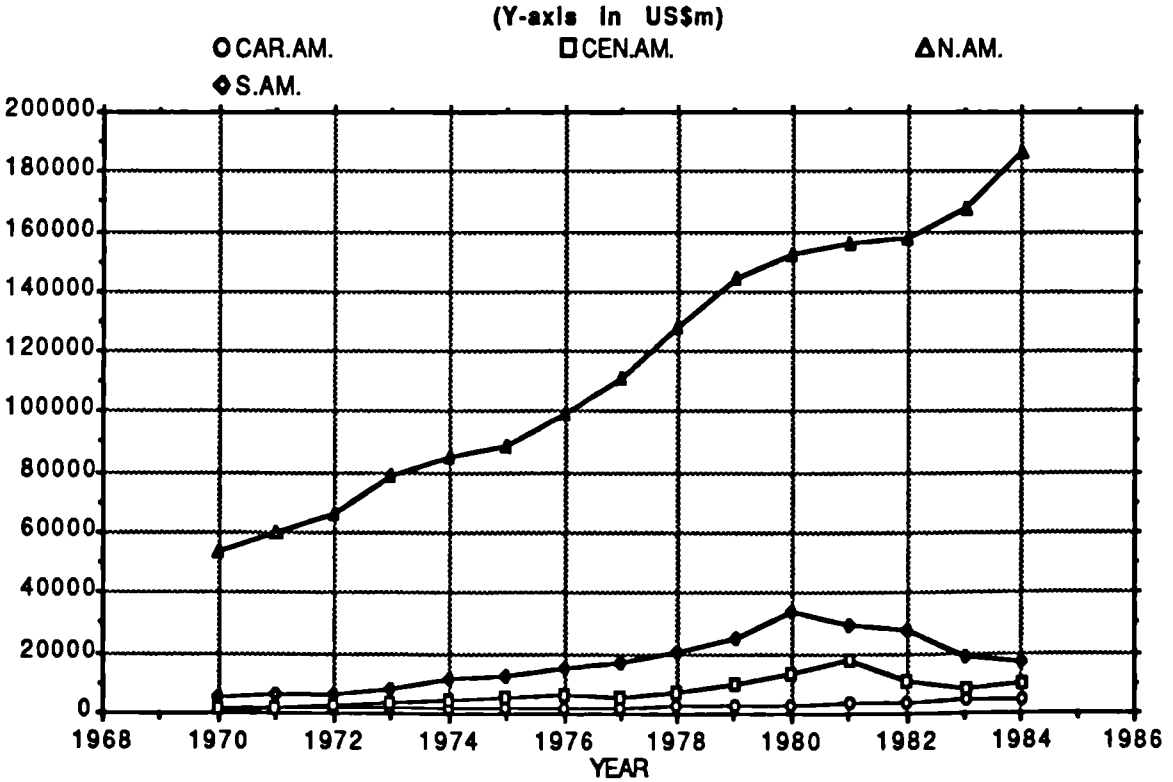



FIGURE 10.9. ESTIMATED VA BY CONSTRUCTION (US$m) : CLASSIFIED ACCORDING TO REGIONS - AMERICA

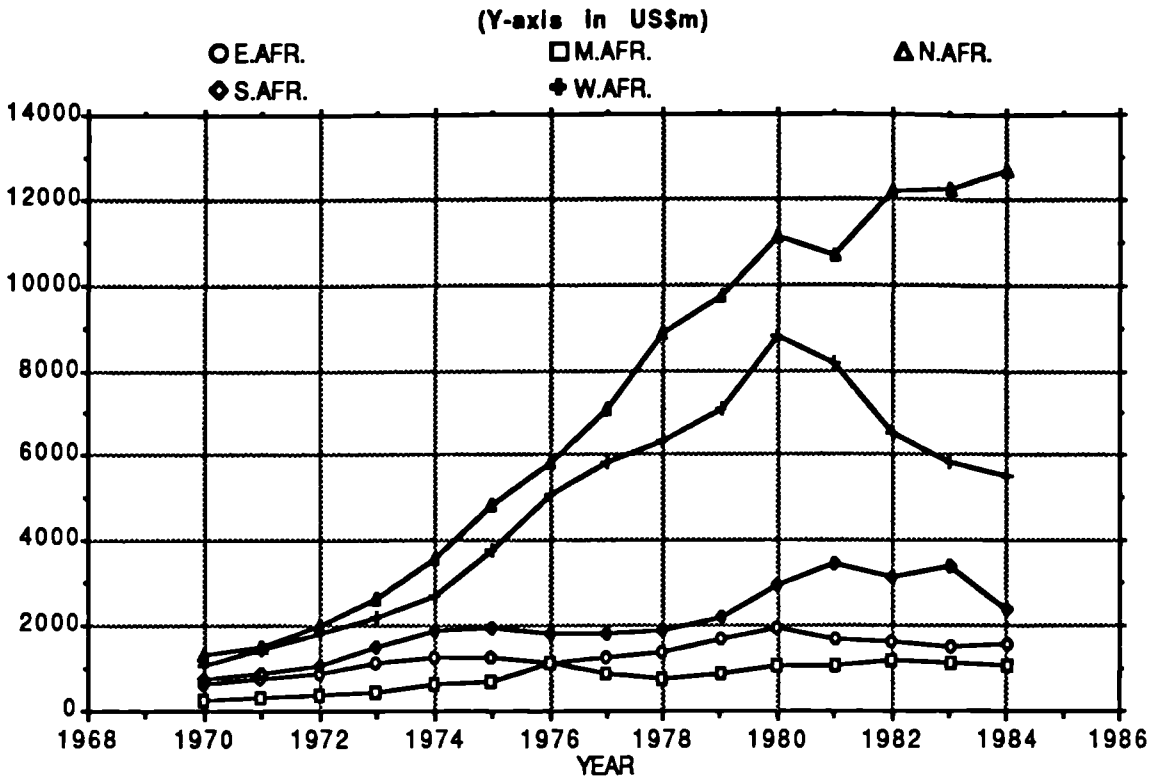



FIGURE 10.10. ESTIMATED VA BY CONSTRUCTION (US$m) : CLASSIFIED ACCORDING TO REGIONS - AFRICA

America as the smallest regional construction market in the entire American region. Figure 10.10 shows the African continent divided into five separate regions with North Africa surging ahead as the largest regional market. The presence of Algeria and Libya as two major oil exporting countries, as well as Egypt, plays a decisive role in propelling North Africa ahead of all the other African regions. West Africa follows in second position with Nigeria as the only oil-producing country. Southern Africa takes third place with South Africa, as the only industrialised country in Africa, playing a major role for the region's performance. East Africa and Middle Africa are in the fourth and fifth positions respectively. Internal strife (eg. in Angola, Uganda and Chad) and natural catastrophes (eg. in Ethiopia) which frequently occur within Eastern and Middle Africa probably account for the regions' lack of sustained investments in construction-related activities.

10.4.2. ANNUAL GROWTH RATES OVER PRECEDING YEAR

These are tabulated in Table 10.7 and plotted in Figures 10.11 to 10.14 on the basis of the four main regional classifications described above.

In conjunction with Figure 10.11, Table 10.7 shows Southern Europe with the highest average annual growth rate (9.31%) among the five regions considered in Europe. The countries taken into account for computations in Southern Europe include Albania, Greece, Italy, Malta, Portugal, Spain and Yugoslavia. Apart from Italy, Spain and Yugoslavia, the other countries within this region appear to be less prolific than

| Year | East Africa | Middle Africa | North Africa | South Africa | West Africa | Caribbean America | Central America | North America | South America |
|---|---|---|---|---|---|---|---|---|---|
| 1970 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 1971 | 17.13 | 19.91 | 11.56 | 16.31 | 38.69 | 14.27 | -3.59 | 10.66 | 18.02 |
| 1972 | 18.64 | 18.97 | 33.82 | 19.17 | 25.66 | 10.01 | 28.86 | 10.82 | 9.56 |
| 1973 | 25.78 | 30.62 | 31.52 | 43.86 | 21.54 | 7.41 | 21.25 | 18.97 | 22.04 |
| 1974 | 9.95 | 32.07 | 35.02 | 27.47 | 21.96 | 12.54 | 36.76 | 8.14 | 40.53 |
| 1975 | 2.83 | 11.60 | 36.56 | 1.21 | 39.83 | 11.50 | 33.42 | 4.35 | 8.43 |
| 1976 | -13.20 | 63.57 | 20.27 | -7.12 | 35.12 | -3.38 | 6.61 | 12.30 | 20.38 |
| 1977 | 10.21 | -23.98 | 21.33 | 2.37 | 15.53 | 11.29 | -13.37 | 11.54 | 10.71 |
| 1978 | 10.29 | -11.58 | 24.97 | 2.97 | 8.48 | 11.42 | 29.96 | 15.18 | 21.28 |
| 1979 | 24.22 | 18.84 | 10.33 | 14.91 | 11.72 | 1.97 | 35.29 | 13.11 | 26.13 |
| 1980 | 15.90 | 16.72 | 14.30 | 35.12 | 23.44 | 23.53 | 39.10 | 5.37 | 34.12 |
| 1981 | -12.27 | 2.73 | -4.10 | 17.72 | -7.03 | 4.10 | 35.29 | 2.31 | -12.84 |
| 1982 | -5.45 | 10.24 | 14.81 | -9.32 | -20.28 | 19.26 | -37.72 | 1.14 | -7.38 |
| 1983 | -5.06 | -5.47 | 0.39 | 8.69 | -10.46 | 7.86 | -26.54 | 6.09 | -32.02 |
| 1984 | 0.88 | -3.80 | 3.91 | -30.40 | -4.79 | -2.46 | 17.25 | 11.34 | -10.33 |
| Mean Growth - | 7.13 | 12.89 | 18.14 | 10.21 | 14.24 | 9.24 | 14.47 | 9.38 | 10.62 |

| Year | East Asia | South Asia | South-East Asia | West Asia | East Europe | North Europe | South Europe | West Europe | Oceania | USSR |
|---|---|---|---|---|---|---|---|---|---|---|
| 1970 | N.A. | N A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 1971 | 16.80 | 7.45 | 5.42 | 3.83 | 13.75 | 12.75 | 6.35 | 15.38 | 14.56 | 15.74 |
| 1972 | 30.88 | 3.35 | 13.83 | 22.35 | 3.62 | 24.63 | 15.74 | 19.69 | 17.35 | 12.40 |
| 1973 | 38.46 | 14.11 | 26.64 | 31.25 | 14.72 | 22.19 | 24.71 | 22.47 | 36.90 | 20.39 |
| 1974 | 10.62 | 15.15 | 37.28 | 40.42 | 6.47 | 8.30 | 21.13 | 5.11 | 28.36 | -0.15 |
| 1975 | 19.35 | 47.78 | 25.33 | 56.98 | 7.72 | 12.14 | 14.00 | 12.87 | 5.70 | 9.62 |
| 1976 | 6.79 | 27.66 | 26.78 | 53.33 | 11.04 | -1.54 | -3.66 | 2.71 | 0.03 | 1.53 |
| 1977 | 17.10 | 28.60 | 19.99 | 31.61 | 3.61 | 5.81 | 14.73 | 12.45 | -3.35 | 7.54 |
| 1978 | 42.91 | 4.01 | 14.49 | 18.08 | 11.26 | 21.27 | 19.53 | 20.27 | 8.92 | 13.52 |
| 1979 | 9.49 | -2.37 | 18.02 | 16.96 | -0.39 | 22.78 | 26.81 | 19.03 | 5.06 | 7.75 |
| 1980 | 4.53 | 25.73 | 29.41 | 26.97 | -2.20 | 16.30 | 12.50 | 15.06 | 15.59 | -2.36 |
| 1981 | 6.37 | 0.28 | 15.42 | 10.43 | -8.34 | -10.42 | -9.27 | -23.11 | 9.52 | 1.98 |
| 1982 | -3.63 | 10.03 | 12.72 | 22.26 | 22.82 | -7.29 | 0.51 | -5.91 | -2.88 | 3.93 |
| 1983 | -2.01 | 33.49 | -1.98 | -16.68 | 0.65 | -4.57 | -6.91 | -1.12 | -8.71 | 3.71 |
| 1984 | 1.86 | -9.88 | -0.08 | 0.31 | 5.20 | -2.64 | -5.83 | -4.22 | 3.36 | 3.10 |
| Mean Growth - | 14.25 | 14.67 | 17.38 | 22.74 | 6.42 | 8.55 | 9.31 | 7.91 | 9.32 | 7.06 |

TABLE 10.7 GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO REGIONS

their other European neighbours. The continuity of further developmental efforts in these countries may perhaps explain why the highest average annual growth rate was recorded in South Europe. Growth rates, in descending order, for North Europe, West Europe, USSR and East Europe are 8.55%, 7.91%, 7.06% and 6.42% respectively. At 6.42%, East Europe, comprising of Bulgaria, Czechoslovakia, East Germany, Hungary, Poland and Romania, has the lowest growth rate in relation to all other regions of the world.

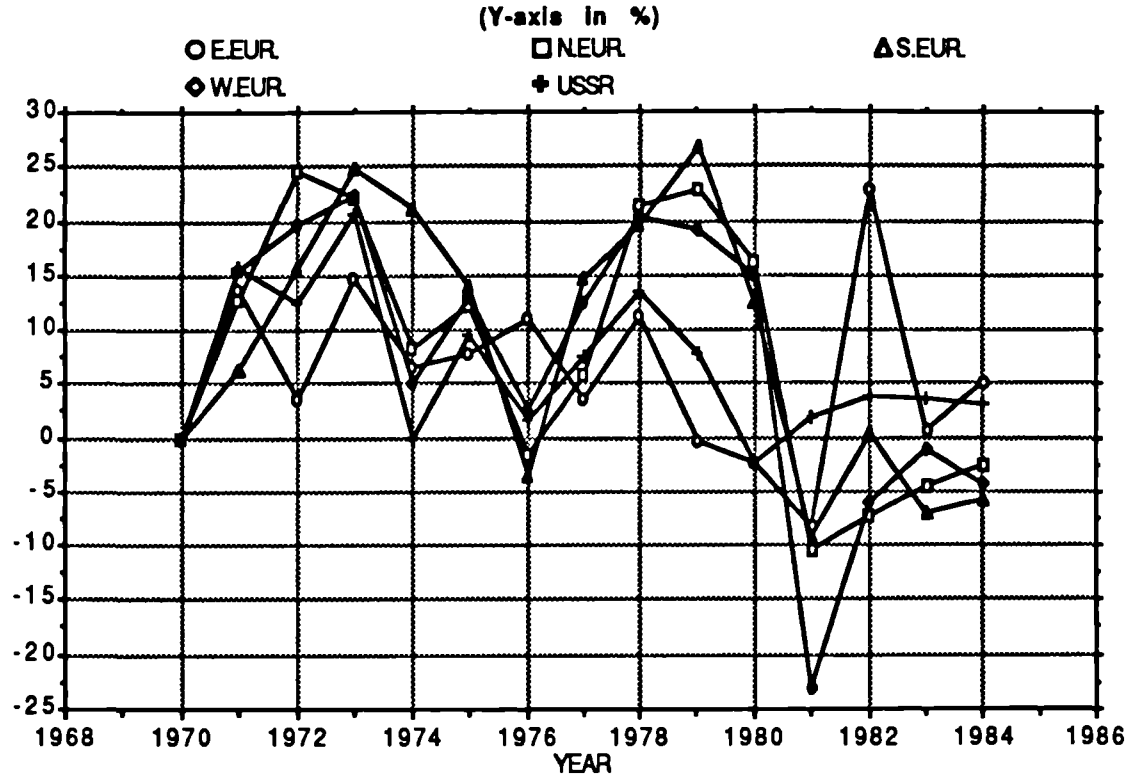



FIGURE 10.11. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : EUROPE AND THE USSR

Figure 10.12 shows the annual growth rates for all the five regions in Asia and the Pacific. In tandem with Table 10.7, the growth rates, in descending order, for West Asia, Southeast Asia, South Asia, East Asia and the Oceania are 22.74%, 17.38%, 14.67%, 14.25% and 9.32% respectively. At the top of this scale, the large number of Middle-Eastern oil-producing countries which go to make up Western Asia have propelled the regional growth rate faster than any other regions of the world. At 22.74%, Western Asia seems to lead the world in terms of contracting opportunities, as can be seen in Table 10.7. This, undoubtedly, confirms the reports of many others who have documented the hive of construction activities in West Asian countries such as Bahrain, Iraq, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Syria and the United Arab Emirates in the 1970s. A comparison of the regional values in Table 10.7 also indicates the above-average performance of Southeast Asia, South Asia and East Asia; all with average annual growth rates above 14%. At the lower end of the Asia and

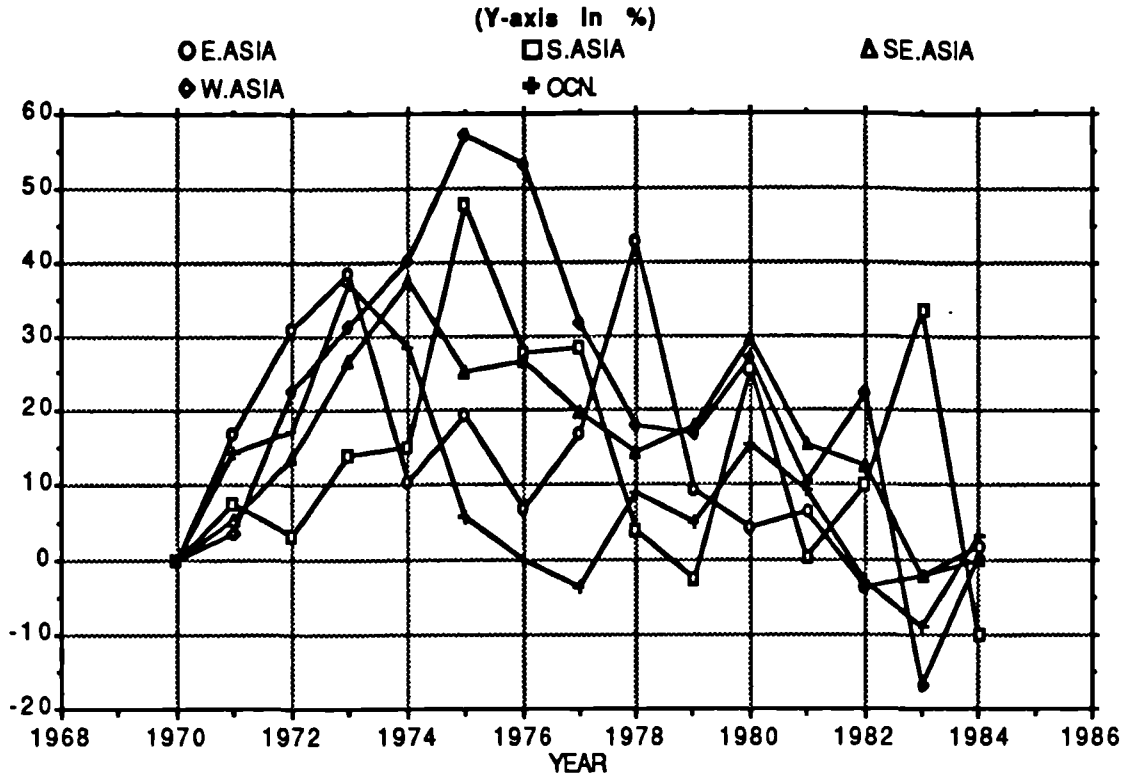



FIGURE 10.12. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : ASIA AND THE PACIFIC

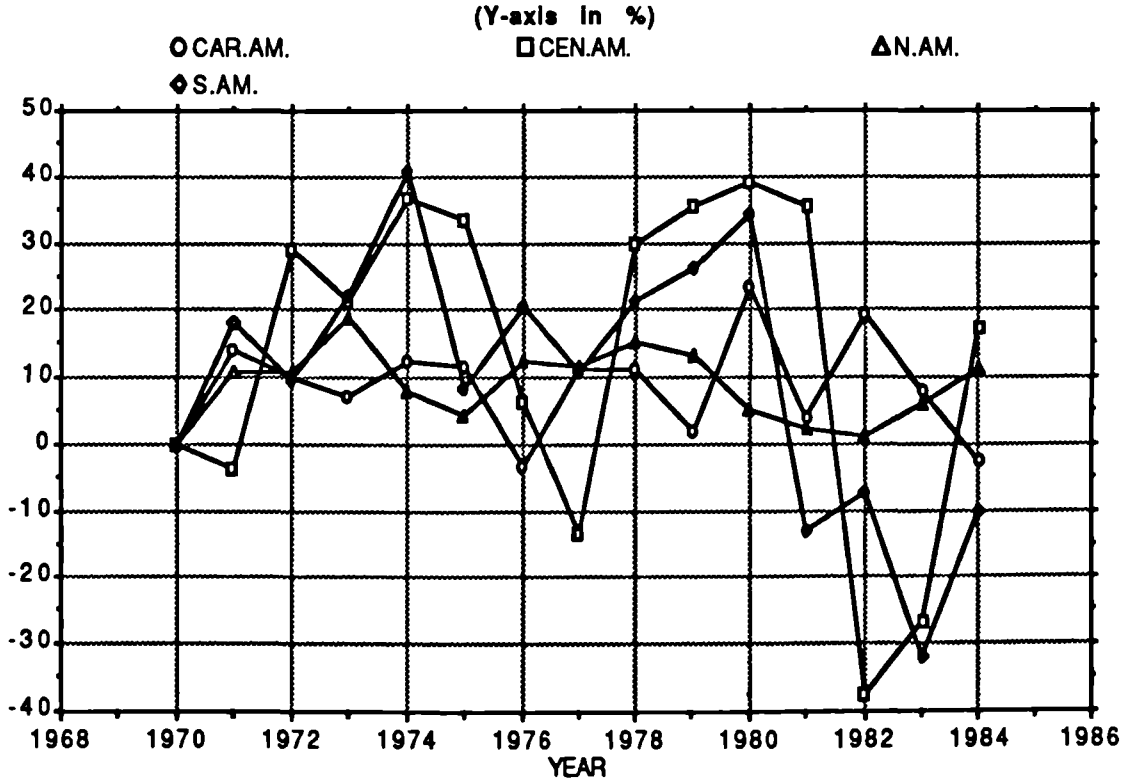



FIGURE 10.13. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : AMERICA

Pacific continuum lies the Oceania, an area comprising of Australia, New Zealand, the Melanesia, the Micronesia and the Polynesia. Apart from Australia and New Zealand which are developed nations, most other sovereignties within Oceania are, at best, relatively unknown entities spread over a large and generally inaccessible geographical area.

Figure 10.13 deals with the corresponding annual growth rates for the regions in America. As Table 10.7 shows, the growth rates ranked in descending order, for Central America, South America, North America and Caribbean America are 14.47%, 10.62%, 9.38% and 9.24% respectively. The large number of diverse and predominately less developed countries in the four regions considered has, however, created considerable problems in analysing and interpreting the growth rates computed here.

The annual growth rates for all the regions of Africa are set out in Figure 10.14. In conjunction with Table 10.7, North Africa projects an average annual growth rate of 18.14%, the highest in Africa and the second highest among all the regions of the world. As noted earlier, the high level of construction activities in Algeria, Libya and Egypt perhaps accounts for this extraordinary performance despite the consideration of only six countries for the regional computations carried out here. The other regions of West Africa, Middle Africa, South Africa and East Africa yield average annual growth rates of 14.24%, 12.89%, 10.21% and 7.13% respectively.

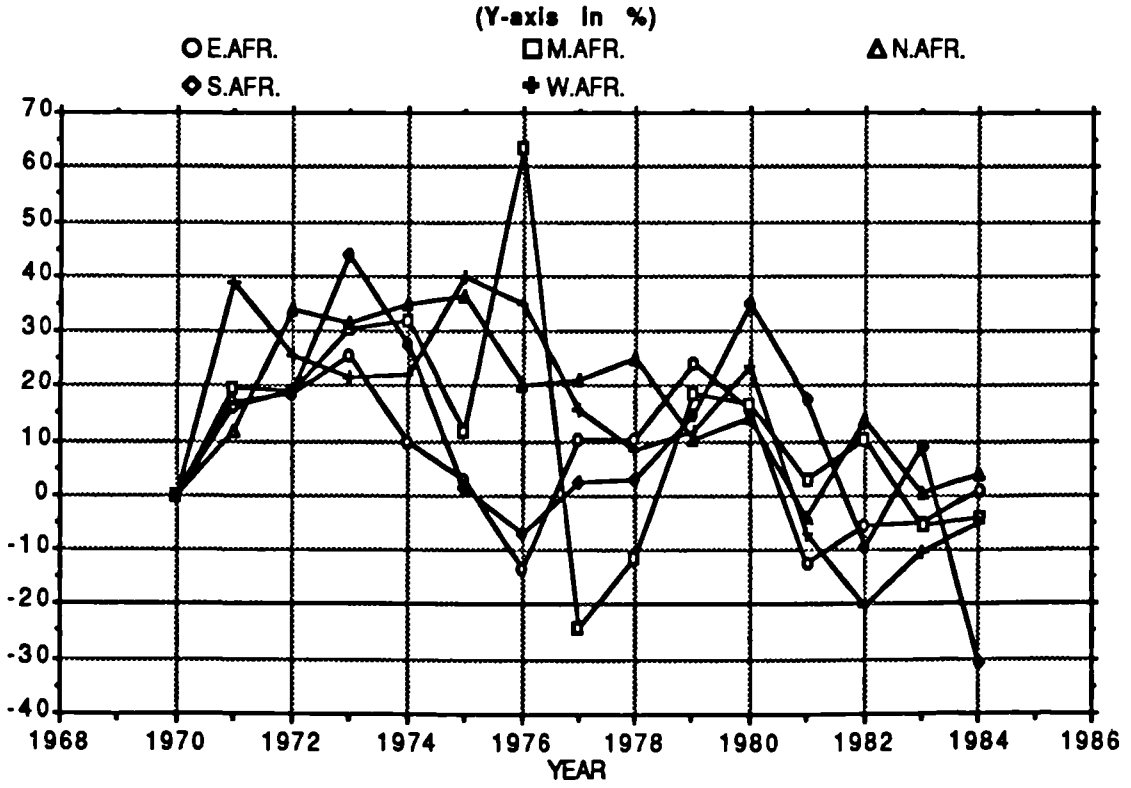



FIGURE 10.14. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : AFRICA

10.4.3. PERCENTAGE SHARES OF WORLD CONSTRUCTION VOLUME

The estimated VA by construction for each of the nineteen regions of the world are again disaggregated further and transformed into percentage shares of the total global construction volume. The results are recorded in Table 10.8 and plotted for each individual region accordingly in Figures 10.15 to 10.18. The followings seek to rank each region in the four main regional classifications on the basis of their

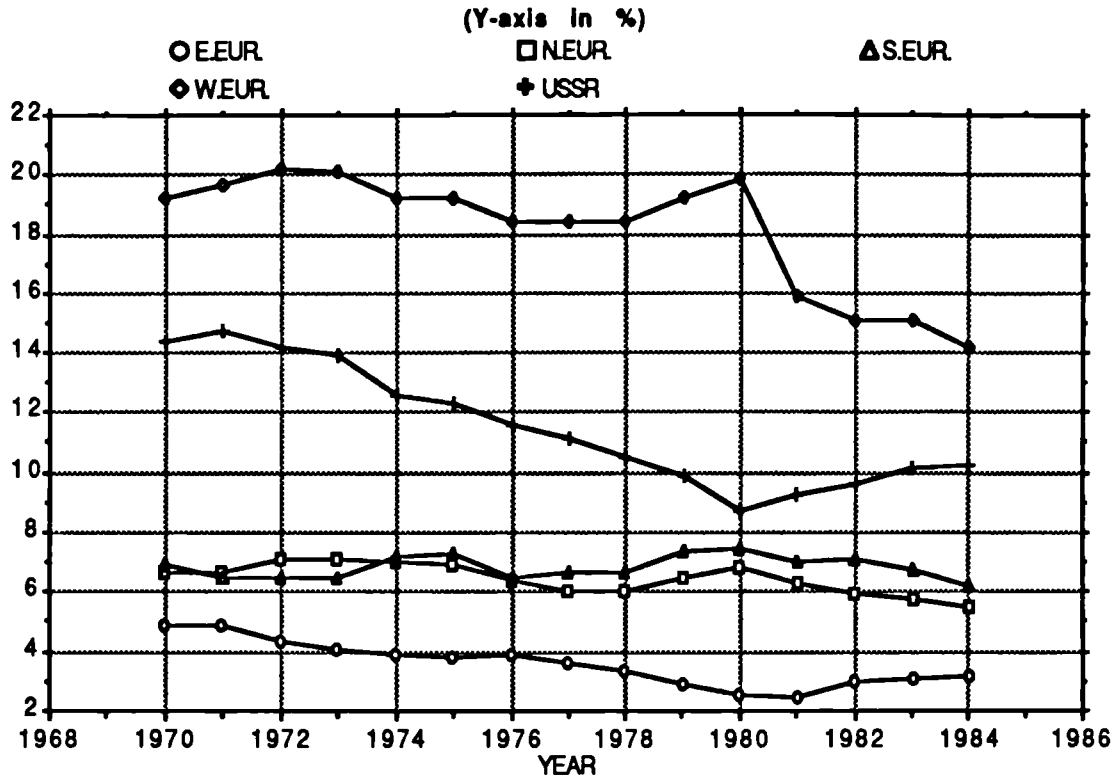



FIGURE 10.15. REGIONAL PERCENTAGE SHARE OF GLOBAL VA IN CONSTRUCTION : EUROPE AND THE USSR

percentage shares of the world construction volume.

In the regional classification of Europe and USSR, Figure 10.15 has portrayed Western Europe as the largest market in percentage share terms (18.16%), followed by the USSR (11.56%), Southern Europe (6.83%), Northern Europe (6.45%) and Eastern Europe (3.58%) in descending order respectively.

Similarly, in the regional classification of Asia and the Pacific, Figure 10.16 and Table 10.8 indicate East Asia as the largest market (14.24%), followed by West Asia (2.79%), South Asia (2.26%), the Oceania (1.71%) and Southeast Asia (1.29%) in descending order.

The ranking for the regional classification of America, in Figure 10.17, shows North America as the largest market in terms of percentage share of the global construction volume, at 23.15%. This is followed, in turn, by South America (3.19%),

| Year | East Africa | Middle Africa | North Africa | South Africa | West Africa | Caribbean America | Central America | North America | South America |
|---|---|---|---|---|---|---|---|---|---|
| 1970 | 0.3189 | 0.1219 | 0.6569 | 0.3677 | 0.5103 | 0.6020 | 1.0400 | 26.4591 | 2.5492 |
| 1971 | 0.3304 | 0.1293 | 0.6482 | 0.3783 | 0.6260 | 0.6085 | 0.8869 | 25.8992 | 2.6611 |
| 1972 | 0.3371 | 0.1323 | 0.7460 | 0.3877 | 0.6765 | 0.5757 | 0.9829 | 24.6826 | 2.5073 |
| 1973 | 0.3440 | 0.1402 | 0.7960 | 0.4525 | 0.6671 | 0.5017 | 0.9669 | 23.8240 | 2.4826 |
| 1974 | 0.3436 | 0.1682 | 0.9765 | 0.5240 | 0.7391 | 0.5129 | 1.2012 | 23.4035 | 3.1692 |
| 1975 | 0.3136 | 0.1666 | 1.1833 | 0.4707 | 0.9173 | 0.5076 | 1.4224 | 21.6763 | 3.0499 |
| 1976 | 0.2532 | 0.2535 | 1.5238 | 0.4067 | 1.1530 | 0.4562 | 1.4106 | 22.6431 | 3.4153 |
| 1977 | 0.2492 | 0.1721 | 1.4344 | 0.3718 | 1.1896 | 0.4534 | 1.0913 | 22.5552 | 3.3766 |
| 1978 | 0.2283 | 0.1264 | 1.4890 | 0.3180 | 1.0719 | 0.4196 | 1.1780 | 21.5783 | 3.4016 |
| 1979 | 0.2479 | 0.1313 | 1.4360 | 0.3194 | 1.0468 | 0.3740 | 1.3931 | 21.3340 | 3.7504 |
| 1980 | 0.2589 | 0.1381 | 1.4790 | 0.3889 | 1.1644 | 0.4163 | 1.7461 | 20.2570 | 4.5327 |
| 1981 | 0.2363 | 0.1476 | 1.4757 | 0.4763 | 1.1263 | 0.4509 | 2.4577 | 21.5619 | 4.1103 |
| 1982 | 0.2249 | 0.1638 | 1.6936 | 0.4348 | 0.9039 | 0.5413 | 1.5407 | 21.9519 | 3.8324 |
| 1983 | 0.2165 | 0.1570 | 1.7240 | 0.4792 | 0.8207 | 0.5920 | 1.1476 | 23.6143 | 2.6417 |
| 1984 | 0.2146 | 0.1484 | 1.7603 | 0.3277 | 0.7678 | 0.5674 | 1.3222 | 25.8337 | 2.3275 |
| Mean - | 0.2745 | 0.1531 | 1.2548 | 0.4069 | 0.8920 | 0.5053 | 1.3192 | 23.1516 | 3.1872 |
| S.D. - | 0.0501 | 0.0323 | 0.3937 | 0.0637 | 0.2236 | 0.0748 | 0.3936 | 1.8836 | 0.6670 |
| CoV - | 18.2672 | 21.0806 | 31.3710 | 15.6528 | 25.0712 | 14.7975 | 29.8394 | 8.1359 | 20.9272 |

| Year | East Asia | South Asia | South-East Asia | West Asia | East Europe | North Europe | South Europe | West Europe | Oceania | USSR |
|---|---|---|---|---|---|---|---|---|---|---|
| 1970 | 9.8865 | 1.8735 | 0.7937 | 1.0515 | 4.8611 | 6.6955 | 6.8897 | 19.2637 | 1.6848 | 14.3749 |
| 1971 | 10.2140 | 1.7807 | 0.7401 | 0.9657 | 4.8912 | 6.6773 | 6.4810 | 19.6394 | 1.7065 | 14.7163 |
| 1972 | 11.4966 | 1.5827 | 0.7245 | 1.0178 | 4.3586 | 7.1567 | 6.4508 | 20.2369 | 1.7223 | 14.2251 |
| 1973 | 12.9149 | 1.4652 | 0.7444 | 1.0838 | 4.0566 | 7.0948 | 6.5267 | 20.1085 | 1.9130 | 13.9172 |
| 1974 | 12.9779 | 1.5327 | 0.9283 | 1.3825 | 3.9234 | 6.9801 | 7.1828 | 19.2011 | 2.2306 | 12.6234 |
| 1975 | 13.7481 | 2.0104 | 1.0326 | 1.9263 | 3.7510 | 6.9477 | 7.2672 | 19.2348 | 2.0926 | 12.2817 |
| 1976 | 13.6574 | 2.3874 | 1.2178 | 2.7475 | 3.8744 | 6.3632 | 6.5126 | 18.3773 | 1.9471 | 11.5998 |
| 1977 | 14.2821 | 2.7419 | 1.3050 | 3.2293 | 3.5851 | 6.0128 | 6.6729 | 18.4559 | 1.6807 | 11.1409 |
| 1978 | 16.9533 | 2.3688 | 1.2410 | 3.1674 | 3.3132 | 6.0569 | 6.6254 | 18.4370 | 1.5206 | 10.5051 |
| 1979 | 16.2252 | 2.0215 | 1.2803 | 3.2381 | 2.8847 | 6.5004 | 7.3441 | 19.1821 | 1.3964 | 9.8946 |
| 1980 | 15.2833 | 2.2902 | 1.4930 | 3.7048 | 2.5422 | 6.8123 | 7.4449 | 19.8879 | 1.4545 | 8.7055 |
| 1981 | 16.9131 | 2.3894 | 1.7929 | 4.2566 | 2.4244 | 6.3494 | 7.0278 | 15.9091 | 1.6574 | 9.2367 |
| 1982 | 16.4073 | 2.6464 | 2.0344 | 5.2388 | 2.9974 | 5.9258 | 7.1103 | 15.0687 | 1.6203 | 9.6636 |
| 1983 | 16.3016 | 3.5821 | 2.0220 | 4.4261 | 3.0589 | 5.7341 | 6.7117 | 15.1083 | 1.4998 | 10.1623 |
| 1984 | 16.3164 | 3.1720 | 1.9853 | 4.3626 | 3.1619 | 5.4853 | 6.2105 | 14.2183 | 1.5232 | 10.2950 |
| Mean - | 14.2385 | 2.2563 | 1.2890 | 2.7866 | 3.5789 | 6.4528 | 6.8305 | 18.1566 | 1.7099 | 11.5561 |
| S.D. - | 2.3817 | 0.6050 | 0.4810 | 1.4590 | 0.7644 | 0.5190 | 0.3781 | 2.0271 | 0.2399 | 2.0170 |
| CoV - | 16.7272 | 26.8137 | 37.3131 | 52.3579 | 21.3586 | 8.0427 | 5.5353 | 11.1647 | 14.0315 | 17.4539 |

TABLE 10.8. ESTIMATED VA BY CONSTRUCTION EXPRESSED AS A PERCENTAGE OF GLOBAL VA IN CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO REGIONS

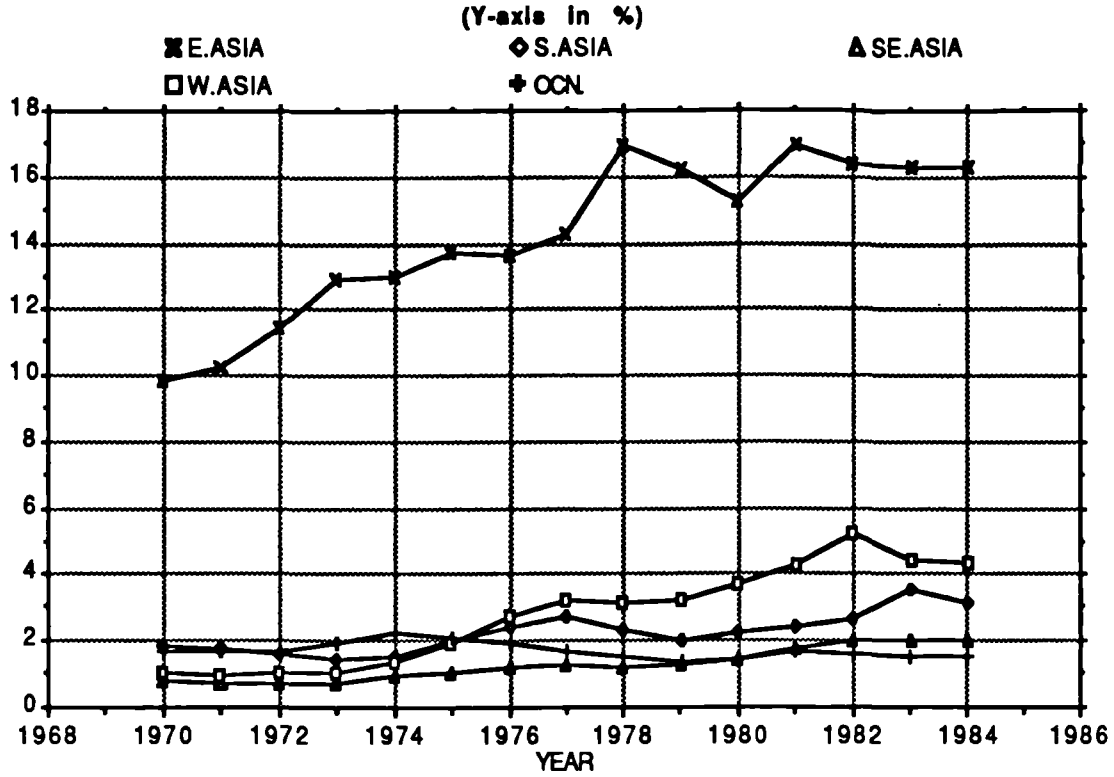



FIGURE 10.16. REGIONAL PERCENTAGE SHARE OF GLOBAL VA IN CONSTRUCTION : ASIA AND THE PACIFIC

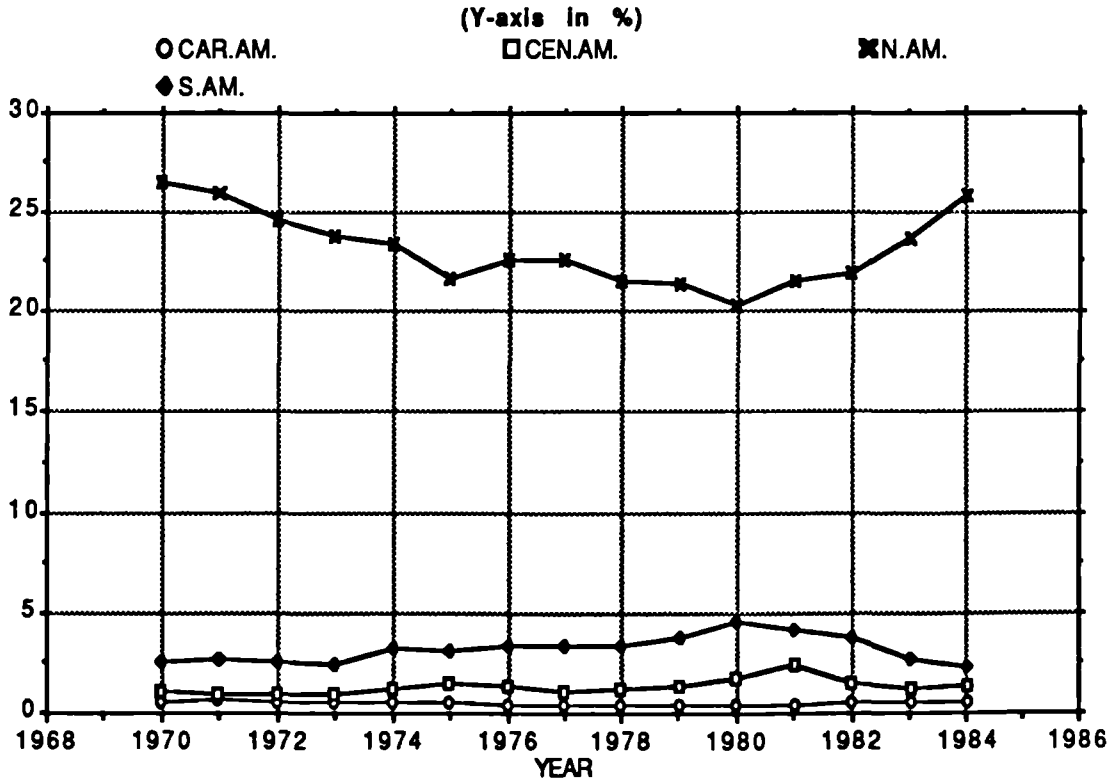



FIGURE 10.17. REGIONAL PERCENTAGE SHARE OF GLOBAL VA IN CONSTRUCTION : AMERICA

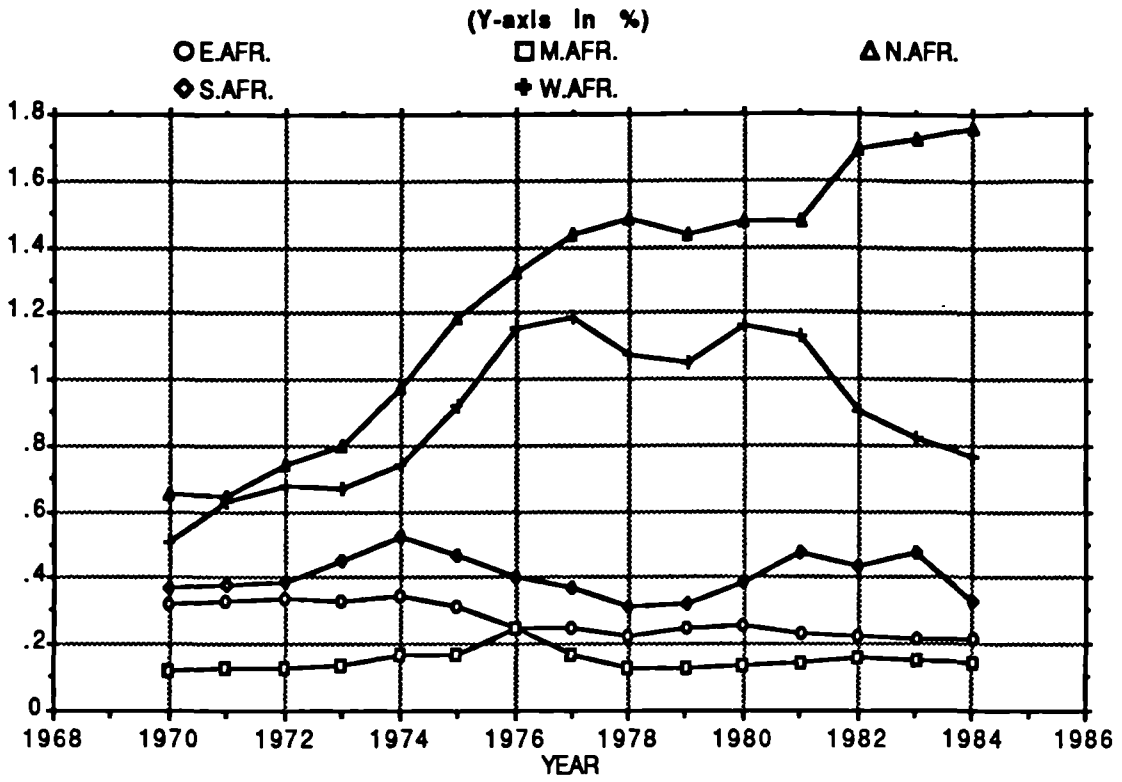



FIGURE 10.18. REGIONAL PERCENTAGE SHARE OF GLOBAL VA IN CONSTRUCTION : AFRICA

Central America (1.32%) and Caribbean America (0.51%).

The African shares of the world construction value added, expressed in percentages, are depicted in Figure 10.18. Heading the list, in terms of size, is North Africa (1.25%). This is followed by West Africa (0.89%), South Africa (0.41%), East Africa (0.27% ) and Middle Africa (0.15%).

A comparison of Figures 10.15 to 10.18 has revealed a subtle phenomenon. It appears that the percentage shares of developed countries are declining as can be evidenced from the slight but steady downward trends of the North American market and most European markets. On the other hand, the upward trends of most developing countries' percentage shares of the world construction market can be readily noticeable.

Lastly, the proportionality impact of each region's percentage share of the global construction volume remains to be demonstrated. This is shown in Figure 10.19. The visual effects created clearly point to the vast difference in composition between the various regions. A distinctive contrast can be made between the North American region having the largest global percentage share, and Middle Africa having the smallest global percentage share.

Table 10.9 is a further summary of Table 10.8 which provides the framework for the following analysis. As depicted in Table 10.9, North America has overshadowed all the other regional areas with a mean percentage share of approximately 23.15% over the

fifteen years' period from 1970 to 1984. The corresponding coefficient of variation is relatively low compared with the other regions, at about 8.14%. The percentage share indicated appears phenomenal considering the fact that there are only four countries here; namely Bermuda, Canada, Greenland and the United States of America. The United States play a significant role in contributing to this figure, yielding an overwhelming mean percentage share and standard deviation of about 20.88% and $\pm$ 1.86% respectively over the same time period.

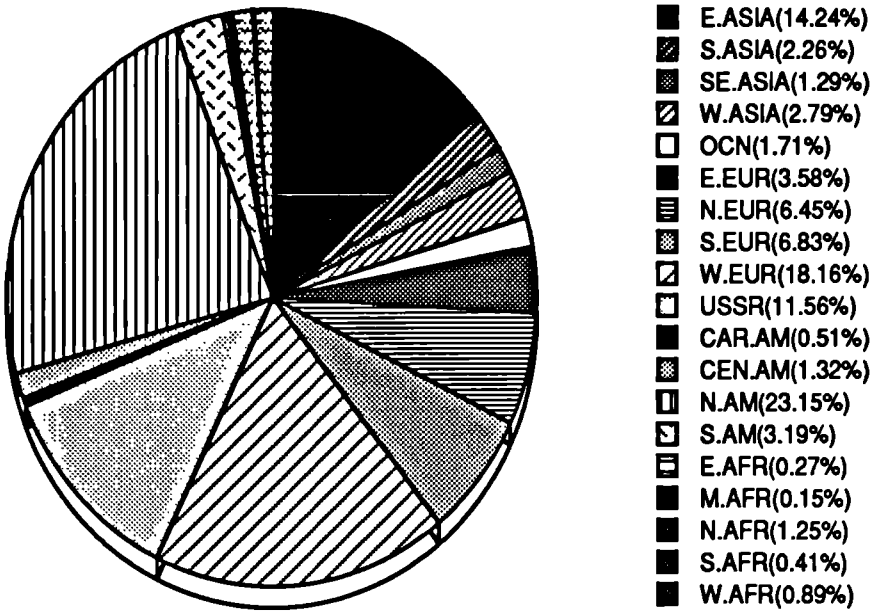



FIGURE 10.19. MEAN PERCENTAGE SHARE OF WORLD CONSTRUCTION VA BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO REGIONS

At the lowest end of the scale, Middle Africa, which comprises of nine countries, shares only approximately 0.15% of the world construction volume in VA terms. Its corresponding coefficient of variation is slightly above that of the global average, at about 21.10%, indicating a relatively large fluctuation over the time frame considered even though its share of the world construction volume is very much less than one percent. Based on the figures shown in Table 10.9, the construction markets in North America appear to be one hundred and fifty-one times larger than those in Middle Africa.

Table 10.9 also reveals that Western Europe follows closely North America with an estimated 18.16% share and a variation way below the global average at approximately 11.16%. All the seven countries considered for this region are developed entities; namely Austria, Belgium, France, West Germany, Luxembourg, the Netherlands and Switzerland.

Following closely behind Western Europe, in third position, is East Asia with an estimated share of 14.24% and a coefficient of variation of 16.73%. Among the seven countries and territories included in this region; namely China, Hong Kong, Japan, North Korea, South Korea, Mongolia and Taiwan, only one, i.e. Japan, is a developed economy. Over the fifteen years' time span, Japan's share of the region's construction volume in global terms amounts to a mean value of approximately 11.78% with a corresponding standard deviation of ± 2.04%. With a regional

| Regions | No. of countries in region | No. of countries considered in analysis | Mean percentage share of global VA by construction (%) | S.D. of mean percentage share (%) | CoV (%) |
|---|---|---|---|---|---|
| North America | 5 | 4 | 23.1516 | 1.8836 | 8.1359 |
| West Europe | 9 | 7 | 18.1566 | 2.0271 | 11.1645 |
| East Asia | 8 | 7 | 14.2385 | 2.3817 | 16.7272 |
| USSR | 1 | 1 | 11.5561 | 2.0170 | 17.4540 |
| South Europe | 11 | 7 | 6.8305 | 0.3781 | 5.5355 |
| North Europe | 11 | 7 | 6.4528 | 0.5190 | 8.0430 |
| East Europe | 6 | 6 | 3.5789 | 0.7644 | 21.3585 |
| South America | 14 | 13 | 3.1872 | 0.6670 | 20.9275 |
| West Asia | 16 | 15 | 2.7866 | 1.4590 | 52.3577 |
| South Asia | 9 | 9 | 2.2563 | 0.6050 | 26.8138 |
| Oceania | 28 | 12 | 1.7099 | 0.2399 | 14.0301 |
| Cen. America | 8 | 8 | 1.3192 | 0.3936 | 29.8363 |
| South East Asia | 11 | 10 | 1.2890 | 0.4810 | 37.3157 |
| North Africa | 7 | 6 | 1.2548 | 0.3937 | 31.3755 |
| West Africa | 17 | 16 | 0.8920 | 0.2236 | 25.0673 |
| Car. America | 23 | 21 | 0.5053 | 0.0748 | 14.8031 |
| South Africa | 5 | 5 | 0.4069 | 0.0637 | 15.6550 |
| East Africa | 18 | 17 | 0.2745 | 0.0501 | 18.2514 |
| Middle Africa | 9 | 9 | 0.1531 | 0.0323 | 21.0973 |
| Total = | 216 | 180 | | Mean = | 20.8394 |
| Percentage of countries considered = 83.33% | | | | S.D. = | 11.0225 |

TABLE 10.9. ESTIMATED VA IN CONSTRUCTION EXPRESSED AS A PERCENTAGE OF ESTIMATED GLOBAL VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO REGIONS AND RANKED IN DESCENDING ORDER OF MEAN PERCENTAGE SHARE

share of some 82.72%, Japan has therefore the largest construction industry in the East Asian region. As a further indicator of its size, the Japanese construction

market's share of the world construction volume may be placed appropriately on an equal standing with the USSR's in fourth position. The vast land masses of China, however, also merit closer scrutiny and examination. In view of their current open-door policies, and despite the Tiananmen Square massacre of June 1989, the Chinese role within this region is expected to increase tremendously (Daniel, 1990).

The results of this analysis have elaborated, in greater detail, the findings of earlier analyses relating to different types of economies. Putting aside firstly the whole host of opportunistic and commercial viability considerations, the market potentials in the developed countries appear to be much more favourable for the international contracting firms by virtue of the former's preponderant share of the world construction volume. However, as evidenced by the enthusiastic inroads made by international firms into the smaller Third World markets, it would be naive to assume that the larger markets of the developed countries will provide the optimal choice. Nonetheless, with the completion of most of the major development projects and the permanent shelving of others by Third World countries, there appears to be a reversal of interests in recent times by international firms towards the construction industries in the developed countries. In effect, the Japanese and Korean construction firms have been reported to have gained some headway in Western Europe, North America and Australia following the downfall of the Middle East and Far East markets in the predominately less developed countries. In apparent retaliation, American and European construction firms are reported to have lobbied for reciprocal opportunities in the huge but notoriously protectionist Japanese market[5].

## 10.5. ESTIMATES BASED ON SIX POLITICAL GROUPINGS

Political co-operation and associations among the various countries have gathered momentum since the last World War. These are, in almost every cases, organised at regional levels and encompassed five major forms of market agreement; namely free trade areas, custom unions, common markets, economic unions and political unions. As Gilligan and Hird (1986) have noted, most regional market agreements are set out mainly to achieve, depending on the characteristics of each agreement, common internal and external tariffs, free flows of factors of production, harmonised fiscal and monetary policy, political harmony between members and the establishment of a supranational authority with the power to develop and impose policy.

The following sections will deal with six political associations, the details of which have been extracted from the "1988 Whitaker Almanac". These organisations are :

1. ASEAN,
2. CARICOM,
3. CMEA,
4. EC,

5. EFTA, and

6. LAS.

Greater attention will then be directed more specifically to ASEAN and the EC at a later stage. Singapore's membership in ASEAN and Great Britain's similar involvement in the EC is one reason why the focus will be directed as such. A more important reason for this concentration, however, lies in the market harmonisation steps to be taken after 1992. There are already indications at the ASEAN-EC Ministerial level of a possible ASEAN-EC Common Market after 1992[6].

10.5.1. ESTIMATED VALUE ADDED BY CONSTRUCTION

Table 10.10 and Figure 10.20 show the estimated VA by construction for ASEAN, CARICOM, CMEA, EC, EFTA and LAS. These indicate EC as the single largest market within all the political groupings, followed by CMEA, EFTA, LAS, ASEAN and CARICOM

| Groups / Year | ASEAN | CARICOM | CMEA | EC | EFTA | LAS |
|---|---|---|---|---|---|---|
| 1970 | 1232.50 | 302.67 | 39836.90 | 51536.97 | 13739.18 | 1760.20 |
| 1971 | 1324.23 | 321.99 | 45895.60 | 58933.17 | 14884.70 | 2029.19 |
| 1972 | 1565.71 | 353.06 | 50588.85 | 72090.29 | 16694.24 | 2683.47 |
| 1973 | 2075.92 | 360.81 | 60248.79 | 90227.86 | 18942.30 | 3758.41 |
| 1974 | 2990.70 | 439.26 | 61157.54 | 97289.37 | 21080.68 | 5436.09 |
| 1975 | 3847.31 | 532.99 | 66802.01 | 109816.04 | 23691.42 | 9080.37 |
| 1976 | 4973.56 | 495.77 | 69301.21 | 109159.49 | 24869.99 | 14115.03 |
| 1977 | 6029.75 | 520.02 | 73886.04 | 122174.16 | 26818.47 | 18565.92 |
| 1978 | 6906.38 | 610.49 | 83405.83 | 150015.37 | 29156.36 | 22681.68 |
| 1979 | 8259.88 | 695.27 | 88071.08 | 184895.72 | 32393.27 | 25898.69 |
| 1980 | 10806.39 | 843.71 | 86208.56 | 212969.68 | 37435.62 | 33138.71 |
| 1981 | 12529.36 | 1068.40 | 85946.19 | 168926.03 | 36917.20 | 36155.17 |
| 1982 | 14130.64 | 1633.23 | 92629.33 | 158495.12 | 36819.52 | 44984.79 |
| 1983 | 13840.65 | 1767.57 | 95407.02 | 153131.92 | 37705.93 | 38392.69 |
| 1984 | 13808.05 | 1424.10 | 98998.08 | 145040.20 | 37584.45 | 38927.86 |

Note : ASEAN : Association of South East Asian Nations
CARICOM : Caribbean Community and Common Market
CMEA : Council for Mutual Economic Assistance
EC : European Community
EFTA : European Free Trade Association
LAS : League of Arab States

TABLE 10.10. ESTIMATED VA BY CONSTRUCTION (US$m) FOR ASEAN, CARICOM, CMEA, EC, EFTA AND LAS BETWEEN 1970 AND 1984

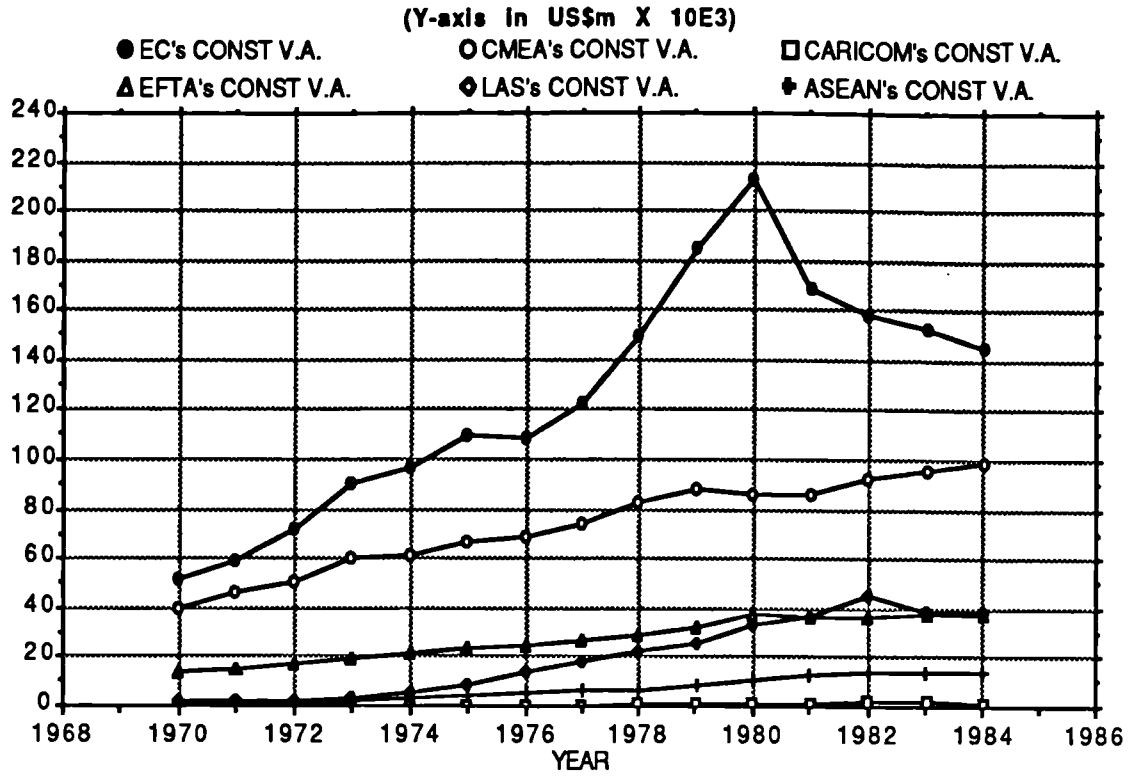



FIGURE 10.20. ESTIMATED VA BY CONSTRUCTION (US$m) : CLASSIFIED ACCORDING TO POLITICAL GROUPINGS

in descending order respectively. As Figure 10.20 indicates, the construction volumes for all the six political associations appear to be increasing steadily, apart from the EC which experienced a sharp dip after 1980. The EC's trend signifies a characteristic which closely matches the global trend first noticed in Figure 10.1 where the downward slide after 1980 was also abrupt. The EC's average percentage share of the world construction volume between 1970 and 1984 amounts to about 25%, a figure which is significant enough to influence the global trend with any of its own fluctuations, however slight that may be. This perhaps accounts for the close similarity between the EC's trend in Figure 10.20 and the global trend in Figure 10.1.

10.5.2. ANNUAL GROWTH RATES OVER PRECEDING YEAR

The annual growth rates over preceding year for all the six political groupings have been detailed and plotted in Table 10.11 and Figure 10.21 respectively. Together, there is every indication that the LAS has the highest average annual growth rate at 26.49%. ASEAN follows in second position with 19.49%. This is, in turn, followed by CARICOM (12.87%), EC (8.54%), EFTA (7.59%) and CMEA (6.87%) in third, fourth, fifth and sixth place respectively. The large number of major oil exporting countries such as Algeria, Bahrain, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Syria, the United Arab Emirates, etc., with their timely and huge petrodollar revenues, following the oil crises of the 1970s, have unquestionably led to an almost instantaneous implementation of many massive construction projects. Oil-rich Brunei and

| Groups / Year | ASEAN | CARICOM | CMEA | EC | EFTA | LAS |
|---|---|---|---|---|---|---|
| 1970 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 1971 | 7.44 | 6.38 | 15.21 | 14.35 | 8.34 | 15.28 |
| 1972 | 18.24 | 9.65 | 10.23 | 22.33 | 12.16 | 32.24 |
| 1973 | 32.59 | 2.20 | 19.09 | 25.16 | 13.47 | 40.06 |
| 1974 | 44.07 | 21.74 | 1.51 | 7.83 | 11.29 | 44.64 |
| 1975 | 28.64 | 21.34 | 9.23 | 12.88 | 12.38 | 67.04 |
| 1976 | 29.27 | -6.98 | 3.74 | -0.60 | 4.97 | 55.45 |
| 1977 | 21.24 | 4.89 | 6.62 | 11.92 | 7.83 | 31.53 |
| 1978 | 14.54 | 17.40 | 12.88 | 22.79 | 8.72 | 22.17 |
| 1979 | 19.60 | 13.89 | 5.59 | 23.25 | 11.10 | 14.18 |
| 1980 | 30.83 | 21.35 | -2.11 | 15.18 | 15.57 | 27.96 |
| 1981 | 15.94 | 26.63 | -0.30 | -20.68 | -1.38 | 9.10 |
| 1982 | 12.78 | 52.87 | 7.78 | -6.17 | -0.26 | 24.42 |
| 1983 | -2.05 | 8.23 | 3.00 | -3.38 | 2.41 | -14.65 |
| 1984 | -0.24 | -19.43 | 3.76 | -5.28 | -0.32 | 1.39 |
| Mean Growth | 19.49 | 12.87 | 6.87 | 8.54 | 7.59 | 26.48 |

Notes :

ASEAN : Association of South East Asian Nations. (Consisting of Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand).

CARICOM : Caribbean Community and Common Market. (Consisting of Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Monserrat, St Christopher & Nevis, St Lucia, St Vincent & Grenadines, and Trinidad & Tobago).

CMEA : Council for Mutual Economic Assistance. (Consisting of Bulgaria, Cuba, Czechoslovakia, East Germany, Hungary, Mongolia, Poland, Romania, USSR and Vietnam).

EC : European Community. (Consisting of Belgium, Denmark, France, West Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and United Kingdom).

EFTA : European Free Trade Association. (Consisting of Austria, Finland, Iceland, Norway, Sweden and Switzerland).

LAS : League of Arab States. (Consisting of Algeria, Bahrain, Djibouti, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen and Democratic Yemen). (Palestine, now part of Israel, and Egypt, suspended in 1979, are not included in the analysis).

TABLE 10.11. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO POLITICAL GROUPINGS

Indonesia, coupled with the comprehensive development programmes in Malaysia, the Philippines, Singapore and Thailand, may, on the other hand, account for the impressive growth rate of ASEAN in second position.

10.5.3. PERCENTAGE SHARES OF WORLD CONSTRUCTION VOLUME

The analysis for the political groupings' percentage shares of the world construction volume can be seen in Table 10.12 and Figure 10.22 which are in many ways similar to the findings presented in Table 10.10 and Figure 10.20. Table 10.12 indicates the EC with the highest average percentage share (25.07%), followed by CMEA (15.39%), EFTA (5.55%), LAS (3.24%), ASEAN (1.19%) and CARICOM (0.14%) in descending order. On the other hand, Table 10.12 also shows the LAS with the largest coefficient of variation (57.39%), follow by ASEAN (42.87%), CARICOM (32.38%), CMEA (18.21%), EFTA (10.56%) and EC (9.48%), again, in descending order. There is, therefore,

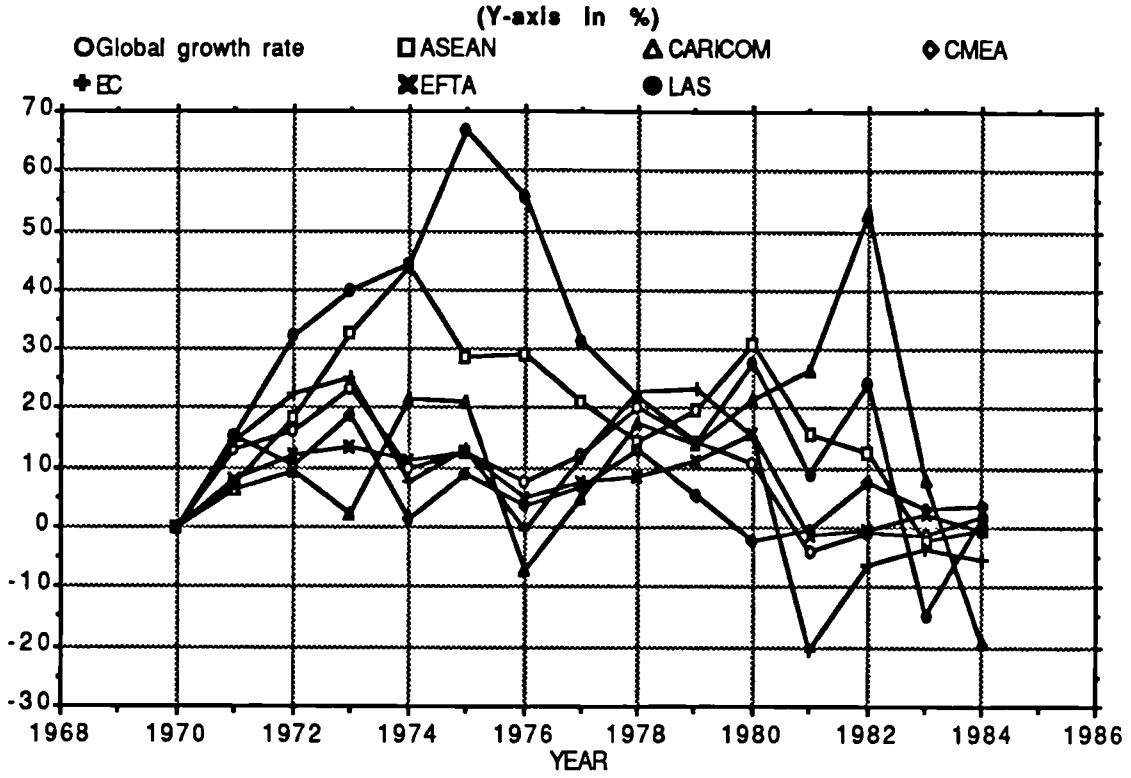



FIGURE 10.21. ANNUAL GROWTH RATES (%) FOR VA BY CONSTRUCTION OVER PRECEDING YEAR ; CLASSIFIED ACCORDING TO POLITICAL GROUPINGS

evidence to suggest that within the six political groupings, the EC is not only the largest market with the highest percentage share of global construction volume but also one of the most stable with its lowest variation coefficient which indicates, in effect, the magnitude of its fluctuation. This contrasts sharply with the LAS where a high coefficient of variation reflects a correspondingly high degree of relative instability where changes tend to be abrupt rather than gradual. Nevertheless, this seems to appeal to business acumen because member countries of the LAS have been proven to be popular enclaves for the congregation of international construction firms in the 1970s.

Figure 10.22 reiterates the point made earlier about the declining share of the global construction volume by the developed world as opposed to the increasing share of the developing countries. As Figure 10.22 shows, there is an apparent downward trend for the developed sovereignties of the EC, CMEA and EFTA. On the other hand, apart from CARICOM which appears to have remained relatively unchanged, both the LAS and ASEAN have steadily progressed upwards, reflecting their small but consistently growing share of the world market.

## 10.6. THE TRENDS IN ASEAN

ASEAN was formed by Indonesia, Malaysia, Philippines, Singapore and Thailand in 1967 with the objectives of accelerating economic growth, social progress and cultural development, the promotion of collaboration and mutual assistance in

| Groups / Year | ASEAN | CARICOM | CMEA | EC | EFTA | LAS |
|---|---|---|---|---|---|---|
| 1970 | 0.605 | 0.149 | 19.549 | 25.291 | 6.742 | 0.864 |
| 1971 | 0.575 | 0.140 | 19.922 | 25.581 | 6.461 | 0.881 |
| 1972 | 0.584 | 0.132 | 18.885 | 26.912 | 6.232 | 1.002 |
| 1973 | 0.629 | 0.109 | 18.247 | 27.327 | 5.737 | 1.138 |
| 1974 | 0.823 | 0.121 | 16.826 | 26.767 | 5.800 | 1.496 |
| 1975 | 0.940 | 0.130 | 16.313 | 26.817 | 5.785 | 2.217 |
| 1976 | 1.130 | 0.113 | 15.742 | 24.796 | 5.649 | 3.206 |
| 1977 | 1.223 | 0.105 | 14.989 | 24.785 | 5.441 | 3.766 |
| 1978 | 1.164 | 0.103 | 14.054 | 25.278 | 4.913 | 3.822 |
| 1979 | 1.217 | 0.102 | 12.972 | 27.234 | 4.771 | 3.815 |
| 1980 | 1.434 | 0.112 | 11.442 | 28.266 | 4.969 | 4.398 |
| 1981 | 1.730 | 0.148 | 11.868 | 23.327 | 5.098 | 4.993 |
| 1982 | 1.964 | 0.227 | 12.876 | 22.032 | 5.118 | 6.253 |
| 1983 | 1.951 | 0.249 | 13.447 | 21.583 | 5.315 | 5.411 |
| 1984 | 1.912 | 0.197 | 13.711 | 20.087 | 5.205 | 5.391 |
| Mean | 1.192 | 0.142 | 15.390 | 25.072 | 5.549 | 3.244 |
| S.D. | 0.511 | 0.046 | 2.802 | 2.377 | 0.586 | 1.861 |
| CoV | 42.870 | 32.378 | 18.210 | 9.479 | 10.558 | 57.386 |

(See Table 10.11 for Notes).

TABLE 10.12. ESTIMATED VA BY CONSTRUCTION EXPRESSED AS A PERCENTAGE OF GLOBAL VA IN CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO POLITICAL GROUPINGS

matters of common interests, and the continuing stability of the Southeast Asian region. When the Association was first conceived in 1967, it was primarily intended

to be a political body to promote regional harmony and peace among the five original member states at a time when memories of the confrontation between Malaysia and Indonesia, as well as the then animosities between Malaysia and Singapore, were still vivid. The "domino" theory which suggests the collapse of one Southeast Asian country after another to communism following the 1975 withdrawal of American forces in Vietnam and the Khmer Rouge's victory in Cambodia (now Kampuchea), however, has widened the concern of ASEAN member states further. This, coupled with the quadrupling of oil prices in the first oil crisis of 1973-74, affected both the political and economic stability in Southeast Asia as world commodity prices for ASEAN's products plunged in the wake of the oil-induced recession in the West. The dangers of chronic unemployment problems and the continuous threat from communist subversion breathed new life into ASEAN when member countries

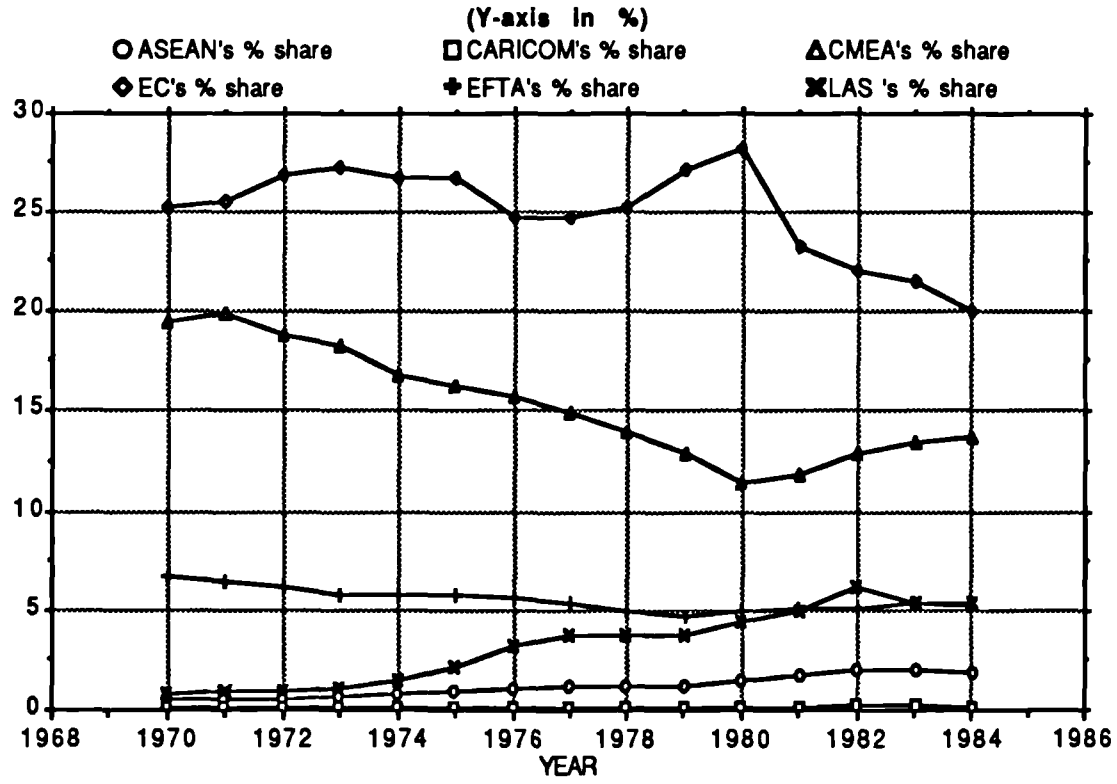



FIGURE 10.22. PERCENTAGE SHARES OF GLOBAL VA IN CONSTRUCTION : CLASSIFIED ACCORDING TO POLITICAL GROUPINGS

realised the need to look after their own economic destiny and political security without having to rely on Western assistance. ASEAN, which has maintained a low profile all along since its formation, was consequently chosen as the coordinating vehicle for development and industrialisation projects among the five member countries. Therefore, although ASEAN was initially formed in 1967, its active role within the region did not crystallise until 1976. At the time of writing, membership in ASEAN has increased to six following Brunei's latest entry into the Association in the early 1980s.

10.6.1. ASEAN IN GENERAL

Figure 10.23 shows the estimated VA by construction trend in ASEAN which indicates an upward climb from 1970 until 1982 when it experienced a sudden decline. This contrasts sharply with Figure 10.1 which indicates the start of the global slide from 1980. There appears to be a time-lag of two years before the effects of the global construction downward trend were reflected in ASEAN. The urgency of important developmental programmes which cannot be postponed as well as other on-going major projects which cannot be shelved are plausible reasons which may account for ASEAN's delayed response to the global decline. For example, the Singapore Government has been known to time the construction of the Republic's S$5b mass rapid transit system with the worldwide recession which set in during the early 1980s. Commanding a buyer's market amidst the fierce competition between order-hungry international construction firms, the situation was quickly capitalised upon with tenders let out at lower than normal prices[7].

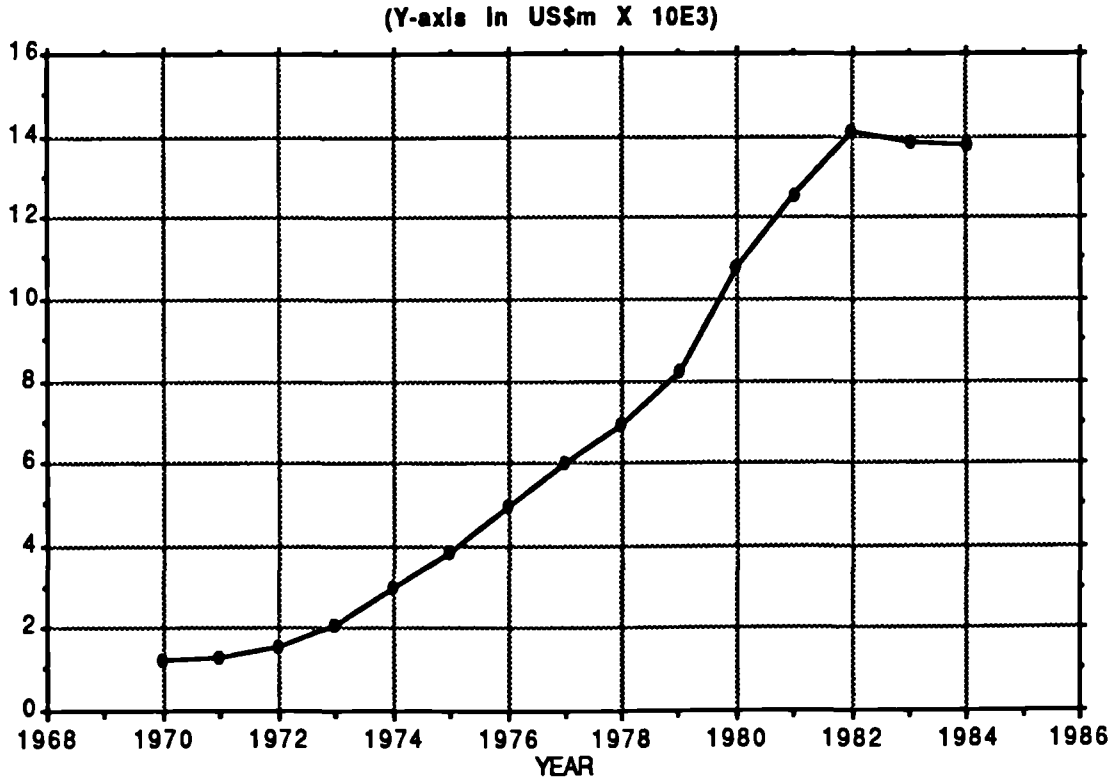



FIGURE 10.23. ESTIMATED VA IN CONSTRUCTION IN ASEAN

Figure 10.24 depicts the annual growth rate for VA by construction over preceding year in ASEAN. This shows the market growth peaking in 1974 and again in 1980. Even with Brunei and Indonesia as the two major oil exporting countries in ASEAN, both the slowdowns in 1974 and 1980 appeared to be delayed responses to the two oil crises of the 1970s and the worldwide recession which set in during the early 1980s.

10.62. ESTIMATED VALUE ADDED BY CONSTRUCTION FOR MEMBER COUNTRIES OF ASEAN

Figure 10.25 shows the yearly estimated VA by construction in US$m for all the six member countries of ASEAN. A ranking of construction size, in descending order, has revealed the largest construction market to be in Indonesia, followed by Philippines, Thailand, Malaysia, Singapore and Brunei. The overall general trend of the ASEAN construction markets, as indicated by Figure 10.25, appears to be one which is growing. This can be seen by the predominately upward movements of the countries' growth trends in Figure 10.25.

10.63. ANNUAL GROWTH RATES FOR MEMBER COUNTRIES OF ASEAN

The mean annual growth rates over preceding year for estimated VA by construction between 1970 and 1984 in the member countries of ASEAN are shown in Table 10.13. This shows Indonesia with the highest average growth rate (24.48%), followed by Malaysia (23.31%), Singapore (23.20%), Philippines (18.33%), Brunei (18.15%) and

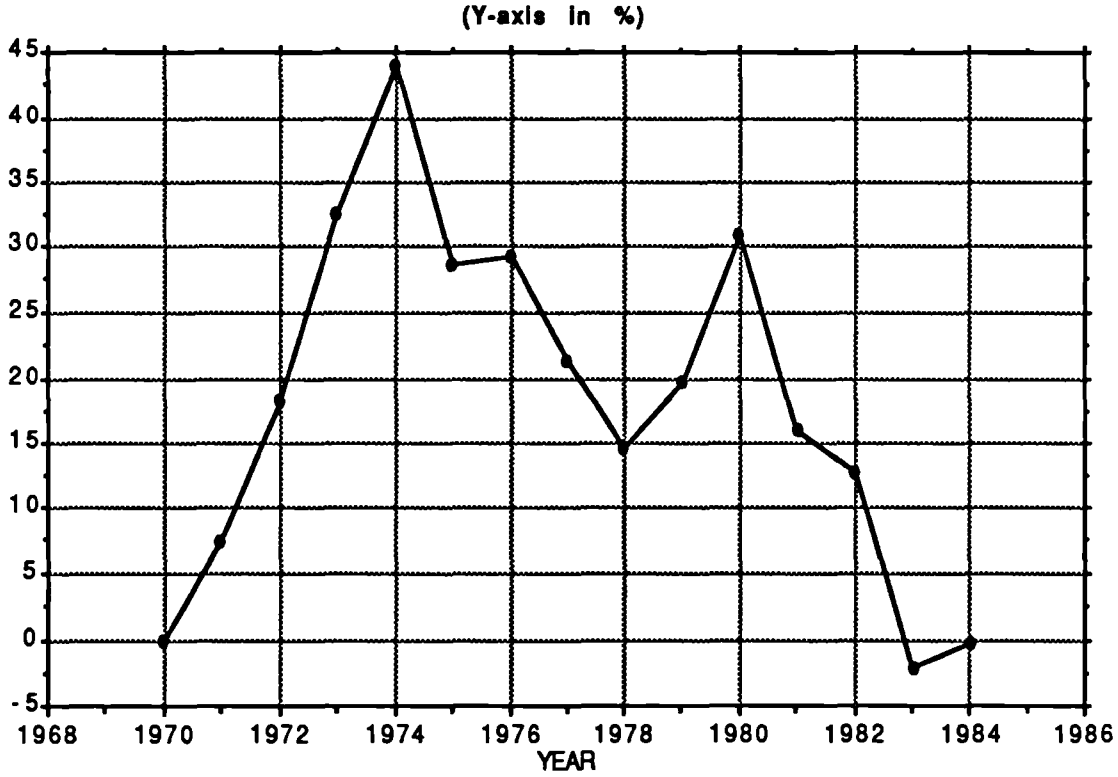



FIGURE 10.24. ANNUAL GROWTH RATES (%) FOR VA BY CONSTRUCTION OVER PRECEDING YEAR IN ASEAN

Thailand (13.67%) in descending order.

The growth trends in both regressional absolute and regressional relative terms for the member countries of ASEAN have been extracted from computations carried out earlier elsewhere and are now shown in Table 10.14 and Table 10.15 respectively. The correlation coefficients, as measures of the trends' goodness of fit, have also been derived from earlier computations carried out elsewhere. Apart from the Philippines

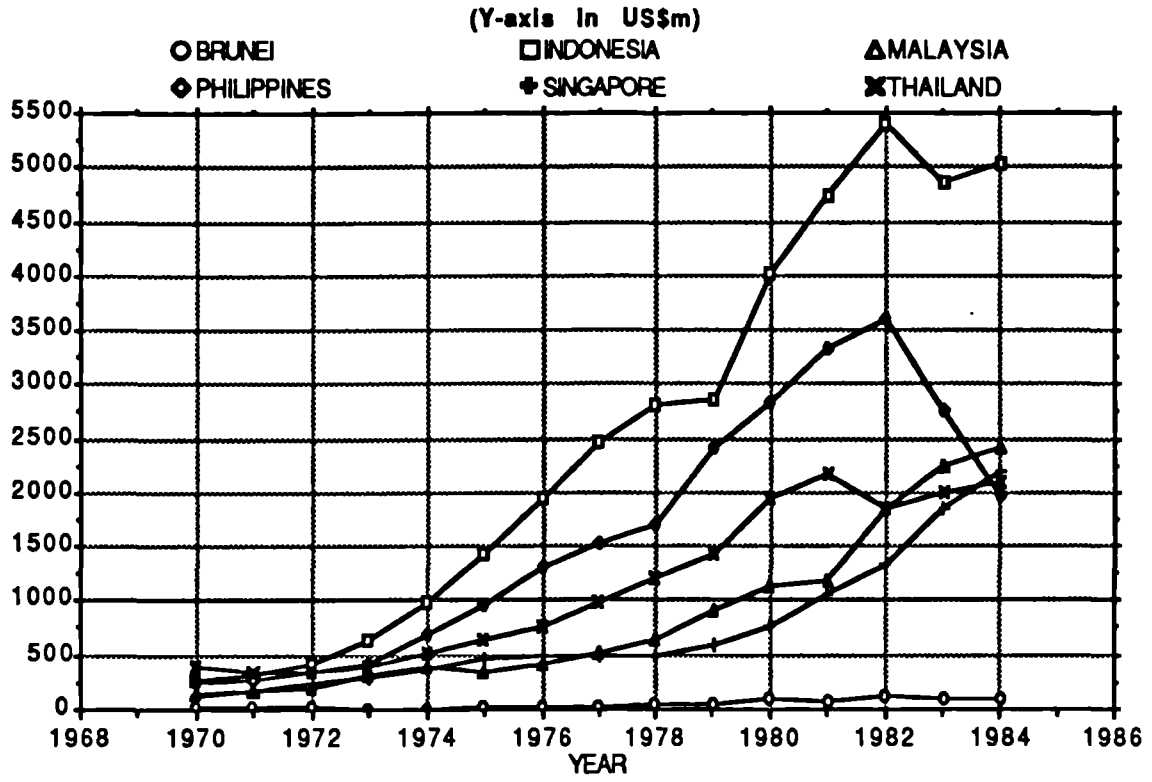



FIGURE 10.25. ESTIMATED VA IN CONSTRUCTION (US$m) BETWEEN 1970 AND 1984 FOR MEMBER COUNTRIES OF ASEAN

which displays a r value of 0.68, all the other countries in both Table 10.14 and Table 10.15 have reported r values in excess of 0.90. This indicates a high level of confidence in utilising their results for comparative purposes. (To reiterate, the trend referred to here is the value of b in the time series regression function, y=a+bx).

As Table 10.14 indicates, when ranked in regressional absolute terms, a descending order shows Indonesia, Philippines, Thailand, Malaysia, Singapore and Brunei in the line-up. This means the Indonesian construction volume is the largest growing market in ASEAN based on its growth trend in regressional absolute terms.

Table 10.15, on the other hand, ranks the six member countries of ASEAN in regressional relative terms. This produces a line-up of Indonesia, Singapore, Malaysia, Philippines, Brunei and Thailand in descending order. Again, on the basis of Indonesia's growth trend in regressional relative terms, Table 10.15 clearly shows the Indonesian construction growth to be the fastest in ASEAN.

### 10.6.4. PERCENTAGE SHARES OF VALUE ADDED IN CONSTRUCTION BY MEMBER COUNTRIES OF ASEAN

The following attempts to disaggregate the percentage shares of ASEAN's member countries at both the global and ASEAN levels. Figure 10.26 indicates the extent of the share of global construction volume accrued to each member country of ASEAN.

This discloses a relatively small ASEAN market in relation to the world market. The Indonesian volume, in itself the largest market in ASEAN, made up less than 0.80% of the world construction VA at its peak. As noted earlier, the entire ASEAN construction volume constitutes between one to two percent of the global volume.

Again, from the earlier computations carried out elsewhere, the following average annual figures for ASEAN member countries' percentage shares of the world construction volume between 1970 and 1984 were revealed - Indonesia (0.43%), Philippines (0.28%), Thailand (0.21%), Malaysia (0.15%), Singapore (0.13%) and Brunei (0.01% ).

These computations also show the coefficients of variation for Indonesia (50.14%), Philippines (44.63%), Thailand (29.39%), Malaysia (59.69%), Singapore (54.80%) and Brunei (45.79%) over the same time period. Obtained by dividing the standard deviation with the average annual share of the global construction volume for each country, these coefficients of variation provide a measure of the standard deviation's

| Members / Year | Brunei | Indonesia | Malaysia | Philippines | Singapore | Thailand |
|---|---|---|---|---|---|---|
| 1970 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 1971 | 0.99 | 18.50 | 18.50 | 7.98 | 30.66 | -12.05 |
| 1972 | -11.85 | 28.37 | 10.41 | 21.19 | 46.78 | -1.37 |
| 1973 | -45.44 | 50.57 | 63.11 | 21.52 | 20.06 | 16.82 |
| 1974 | 4.93 | 54.96 | 21.92 | 70.12 | 29.10 | 30.67 |
| 1975 | 112.34 | 45.32 | -15.68 | 40.41 | 19.87 | 20.54 |
| 1976 | 19.86 | 37.66 | 21.05 | 35.01 | 6.70 | 22.36 |
| 1977 | 25.40 | 25.83 | 24.00 | 17.10 | 0.88 | 27.85 |
| 1978 | 12.06 | 13.99 | 26.85 | 10.42 | 0.29 | 23.16 |
| 1979 | 44.80 | 2.23 | 41.01 | 41.64 | 18.35 | 17.26 |
| 1980 | 72.40 | 40.13 | 25.36 | 17.81 | 29.99 | 36.26 |
| 1981 | -17.41 | 17.37 | 2.98 | 17.06 | 38.81 | 11.71 |
| 1982 | 46.40 | 14.50 | 56.78 | 8.07 | 26.84 | -15.50 |
| 1983 | -10.44 | -10.10 | 22.52 | -22.84 | 37.76 | 9.23 |
| 1984 | 0.09 | 3.33 | 7.59 | -28.86 | 18.77 | 4.40 |
| Mean Growth | 18.15 | 24.48 | 23.31 | 18.33 | 23.20 | 13.67 |

TABLE 10.13. GROWTH RATES (%) OVER PRECEDING YEAR FOR ESTIMATED VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO MEMBER COUNTRIES OF ASEAN

| Countries | Rate | Rank | r |
|---|---|---|---|
| Indonesia | 382.540 | 1 | 0.968 |
| Philippines | 145.630 | 2 | 0.680 |
| Thailand | 144.219 | 3 | 0.953 |
| Malaysia | 137.821 | 4 | 0.906 |
| Singapore | 118.682 | 5 | 0.902 |
| Brunei | 7.834 | 6 | 0.904 |

(Note : 1. Rate of growth in US$m. 2. r = coefficient of correlation).

TABLE 10.14. COUNTRIES RANKED IN REGRESSIONAL TRENDS OF VA BY CONSTRUCTION IN ASEAN

dispersal about the mean. In the process, the fluctuations experienced by each country's percentage share can thus be indicated. A high coefficient, therefore, suggests a wide fluctuation, in this case, over time. As noted above, the analysis shows Indonesia with the greatest average annual percentage share of the global volume (0.43%) and Malaysia with the largest coefficient of variation (59.69%) among the

| Countries | Rate | Rank | r |
|---|---|---|---|
| Indonesia | 138.785 | 1 | 0.968 |
| Singapore | 92.505 | 2 | 0.902 |
| Malaysia | 89.350 | 3 | 0.906 |
| Philippines | 56.765 | 4 | 0.680 |
| Brunei | 36.757 | 5 | 0.904 |
| Thailand | 36.374 | 6 | 0.953 |

(Note : r = coefficient of correlation).

TABLE 10.15. COUNTRIES RANKED IN REGRESSIONAL TRENDS OF CONSTRUCTION VA INDICES IN ASEAN

member countries of ASEAN.

The spatial distribution of construction VA in ASEAN between 1970 and 1984 is outlined in Table 10.16 and Figure 10.27. The mean percentage share figures from Table 10.16 show Indonesia as the largest market with about 34.29% share of the total ASEAN construction volume over the fifteen years' period. This is followed, in descending order, by the markets in Philippines (23.30%), Thailand (18.60%), Malaysia (12.07%), Singapore (10.92%) and Brunei (0.82%). Although the market share in Brunei is the least significant, its coefficient of variation is, however, the

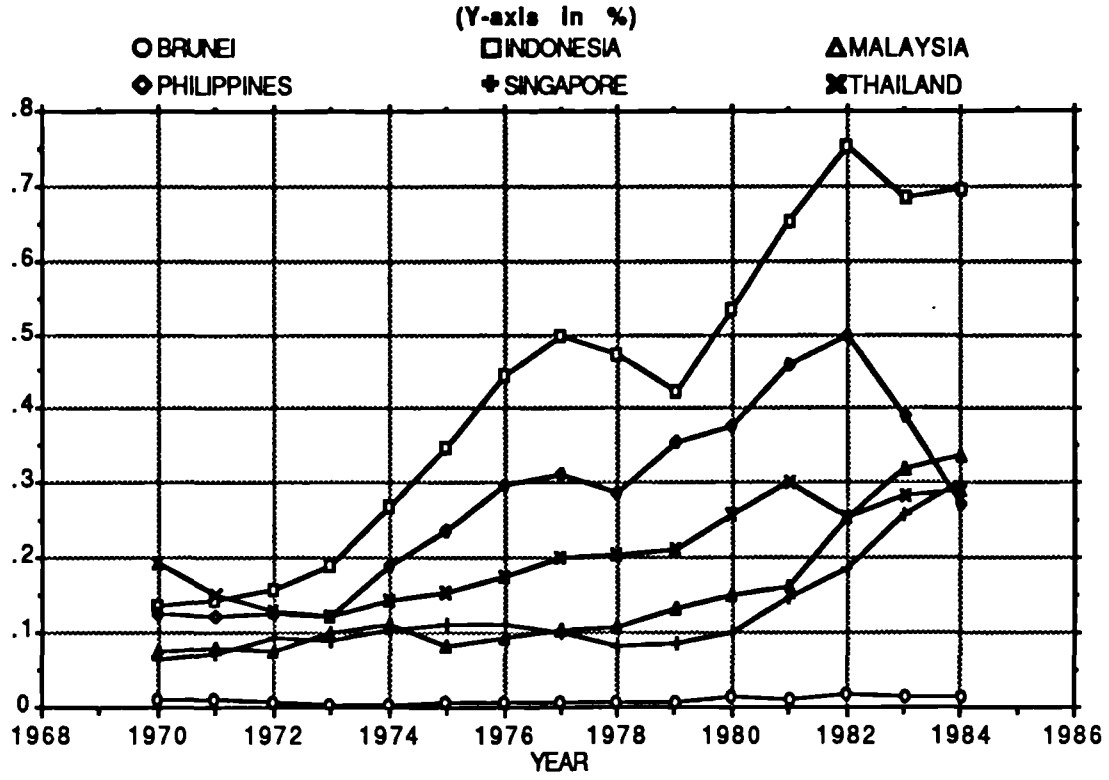



FIGURE 10.26. COUNTRIES' PERCENTAGE SHARES OF ESTIMATED GLOBAL VA BY CONSTRUCTION IN ASEAN

highest. At 48.95%, this indicates the wide fluctuations in Brunei's market share of the ASEAN construction volume. The corresponding coefficients of variation for the other remaining five countries are Indonesia (16.86%), Philippines (16.21%), Thailand (26.49%), Malaysia (24.84%) and Singapore (28.20%).

The graphical format of Table 10.16 is presented in Figure 10.27. The results in Figure 10.27 appear to be highly dispersed, indicating the characteristic uncertainties of each country's percentage shares of the ASEAN construction volume between 1970 and 1984. Each country's shares in percentage terms have varied considerably, apart from the Bruneian market whose annual percentage shares have appeared to be relatively insignificant anyway. The extrapolation of generalisable and meaningful trends from Figure 10.27 is therefore exceedingly difficult. This has, however, been overcome to a limited extent by Figure 10.28 which seeks to provide a proportionality effect between the member countries of ASEAN. Here, the relative size of each country's percentage share of the ASEAN construction VA can be contrasted readily.

## 10.7. THE TRENDS IN THE EC

The European Community, underpinned by the 1957 Treaty of Rome, has as its ultimate objective the development of both economic and political union among its member countries. Of utmost importance to all its member countries, in the commercial sense, lies the prospect of an enlarged common market with a population of 320m people. Work is currently underway to remove the last remaining barriers as

| Members / Year | Brunei | Indonesia | Malaysia | Philippines | Singapore | Thailand |
|---|---|---|---|---|---|---|
| 1970 | 1.729 | 22.363 | 12.514 | 20.806 | 10.409 | 32.179 |
| 1971 | 1.625 | 24.664 | 13.802 | 20.910 | 12.658 | 26.341 |
| 1972 | 1.212 | 26.779 | 12.889 | 21.433 | 15.714 | 21.973 |
| 1973 | 0.499 | 30.412 | 15.856 | 19.644 | 14.229 | 19.360 |
| 1974 | 0.363 | 32.712 | 13.419 | 23.196 | 12.751 | 17.559 |
| 1975 | 0.599 | 36.953 | 8.795 | 25.318 | 11.882 | 16.453 |
| 1976 | 0.556 | 39.389 | 8.235 | 26.441 | 9.807 | 15.573 |
| 1977 | 0.575 | 40.882 | 8.423 | 25.539 | 8.160 | 16.422 |
| 1978 | 0.562 | 40.686 | 9.328 | 24.620 | 7.145 | 17.658 |
| 1979 | 0.681 | 34.779 | 10.998 | 29.158 | 7.071 | 17.313 |
| 1980 | 0.897 | 37.251 | 10.538 | 26.256 | 7.025 | 18.032 |
| 1981 | 0.639 | 37.708 | 9.360 | 26.508 | 8.411 | 17.374 |
| 1982 | 0.830 | 38.282 | 13.011 | 25.401 | 9.459 | 13.017 |
| 1983 | 0.789 | 35.135 | 16.275 | 20.010 | 13.304 | 14.517 |
| 1984 | 0.761 | 36.390 | 17.551 | 14.268 | 15.839 | 15.192 |
| Mean | 0.819 | 34.292 | 12.066 | 23.300 | 10.924 | 18.598 |
| S.D. | 0.401 | 5.782 | 2.997 | 3.776 | 3.081 | 4.926 |
| CoV | 48.946 | 16.861 | 24.835 | 16.207 | 28.202 | 26.486 |

TABLE 10.16. ESTIMATED VA IN CONSTRUCTION EXPRESSED AS A PERCENTAGE OF ASEAN'S VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO MEMBER COUNTRIES OF ASEAN

preparations are geared up for a harmonised market in 1992 with unimpeded access for products, services and factors of production between all member countries. The twelve member countries of the EC, at the time of writing, are Belgium, Denmark, France, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom and West Germany.

10.7.1. THE EC IN GENERAL

Figure 10.29 outlines the trend of the estimated VA in construction in the EC between 1970 and 1984. A gradual climb was noticeable between 1970 and 1976. Thereafter, the climb became much steeper until 1980 when it started to fall rather rapidly. As noted earlier, the strong influence of the EC's percentage share of the world construction volume, amounting to about 25% on average, means that most of the movements within the EC will be reflected correspondingly in the global trends, as can be seen in Figure 10.1. Figure 10.29 therefore parallels the pattern seen in Figure 10.1 very well apart from the decline after 1980 which appears to be distinctly sharper in the EC.

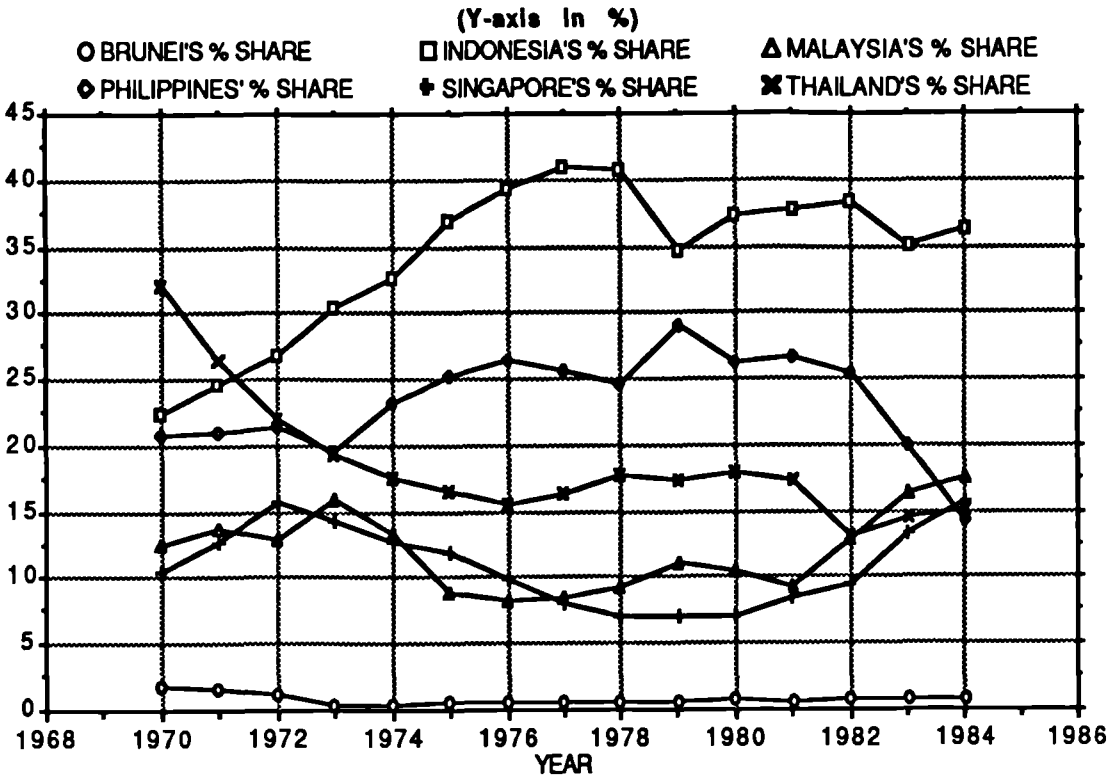



FIGURE 10.27. COUNTRIES' PERCENTAGE SHARES OF ESTIMATED VA BY CONSTRUCTION IN ASEAN

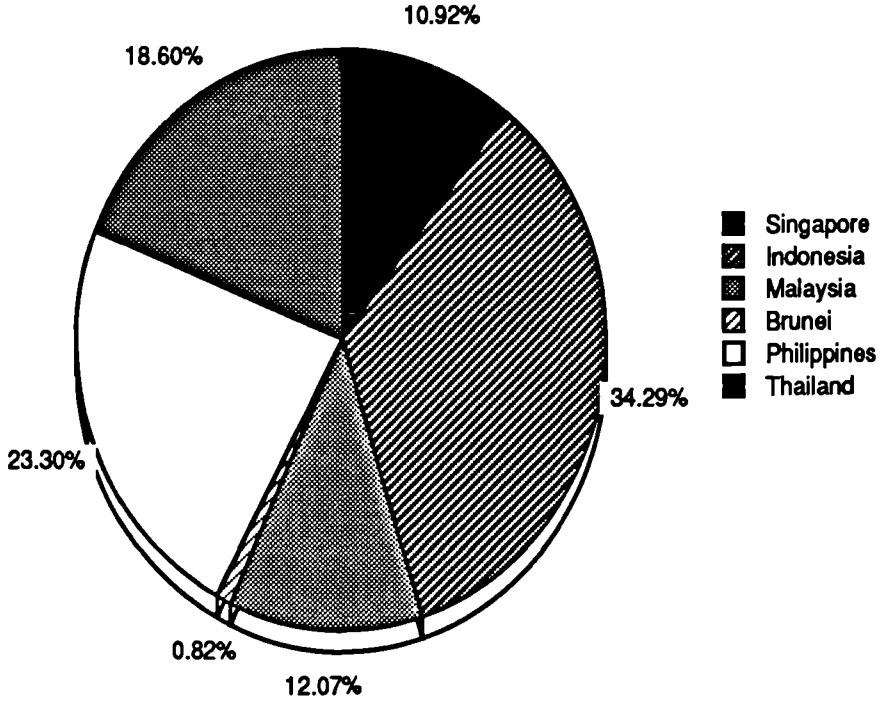



FIGURE 10.28. MEMBER COUNTRIES' MEAN PERCENTAGE SHARES OF ASEAN CONSTRUCTION VA BETWEEN 1970 AND 1984

The EC's annual growth rates for construction VA over preceding year between 1970 and 1984 have been charted in Figure 10.30. This indicates the EC's growth rates peaking in 1973 and again in 1979, in what appear to be the aftermath effects of the two world oil crises of the 1970s. The decline in growth rates after 1979 has also been particularly steep. The global recessionary effects of the early 1980s may have accounted for the negative growth rates in the EC at about this time.

10.7.2. ESTIMATED VALUE ADDED BY CONSTRUCTION FOR MEMBER COUNTRIES OF THE EC

Figure 10.31 shows the annual estimated VA by construction for the twelve member countries of the EC between 1970 and 1984. As can be seen, West Germany is undoubtedly the largest market and Luxembourg the smallest market in monetary terms. Because of the close proximities between most EC member countries in continental Europe, the market movements in any one influential country within the community may have apparently filtered through to affect all other countries within the group. The effects would therefore tend to be reflected on a collective basis for all individual trends. As can be seen in Figure 10.31, there appears to be a relatively fixed pattern for most of the countries. The peaked effect in 1980 as well as the downward trend in the early 1980s are clearly noticeable. The countries with the largest construction volume within the community, notably, West Germany, France,

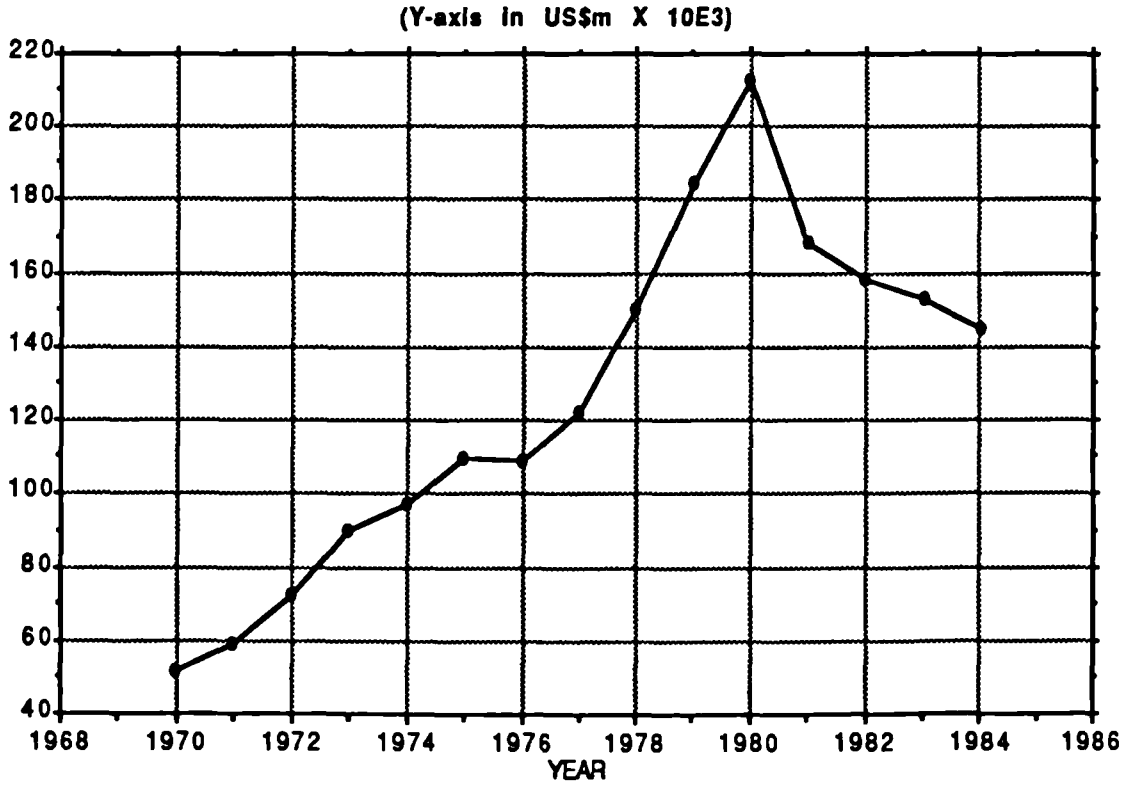



FIGURE 10.29. ESTIMATED VA BY CONSTRUCTION IN THE EC

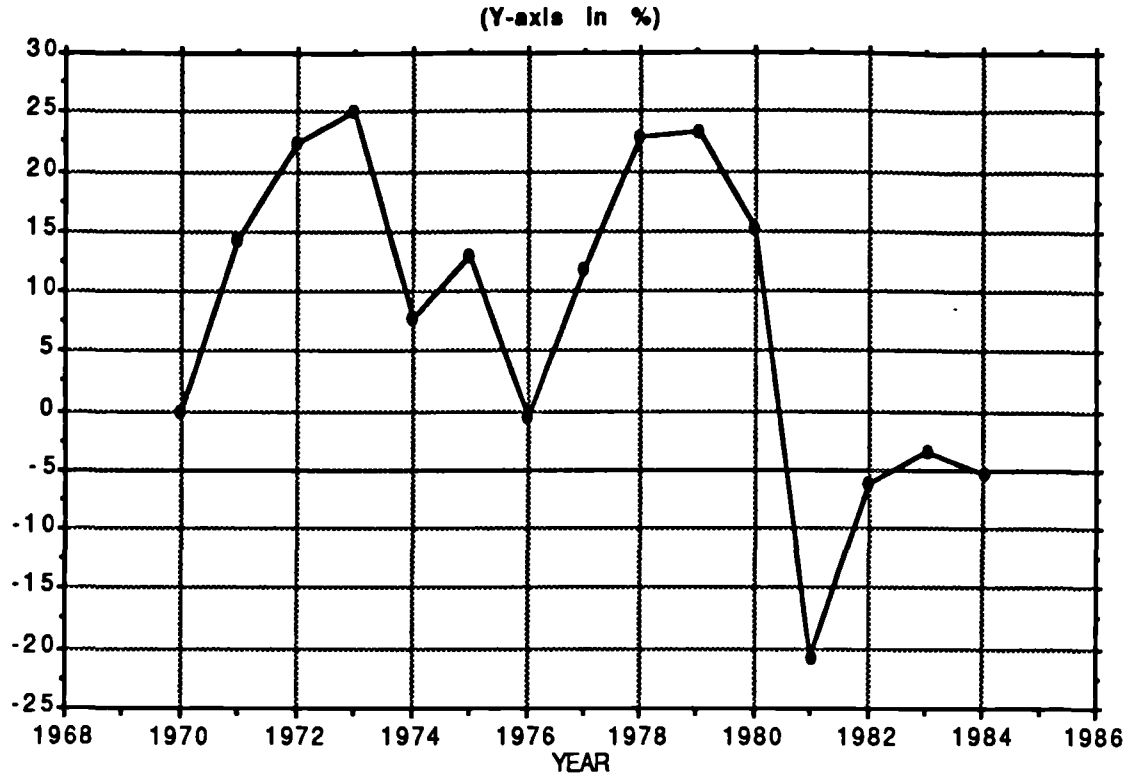



FIGURE 10.30. ANNUAL GROWTH RATES FOR VA BY CONSTRUCTION OVER PRECEDING YEAR IN THE EC

Italy and United Kingdom, appear to lead the way for such a paradigm. Their spin-off effects seem to have filtered downward to all the other countries as the distinctive trend among the four largest countries becomes discernible.

10.7.3. ANNUAL GROWTH RATES FOR MEMBER COUNTRIES OF THE EC

The average annual growth rates over preceding year for all the EC member countries' estimated VA by construction are shown in Table 10.17. The Irish and Danish construction industries are featured at both ends of the scale, with Ireland having the highest mean growth rate of 11.49% and Denmark with the lowest mean growth rate of 5.23% over the fifteen years' period considered. In between are the countries of Portugal (10.63%), Spain (10.19%), Luxembourg (9.77%), United Kingdom (9.60%), Italy (9.51%), Netherlands (9.31%), France (8.48%), Greece (8.20%), West Germany (8.04%) and Belgium (7.87%) in descending order. The average annual growth rates for all the EC member countries in Table 10.17 have undoubtedly paled in the light of the growth rates experienced by the member countries of ASEAN as noted previously in Table 10.13. The EC's highest average growth rate of 11.49% in Ireland is still smaller than ASEAN's lowest average growth rate of 13.67% found in Thailand.

As in the case of ASEAN, the growth trends in regressional absolute and regressional relative terms for member countries of the EC are drawn from earlier computations carried out elsewhere and shown in Table 10.18 and Table 10.19 respectively. As can

| Members / Year | Belgium | Denmark | France | W. Germany | Greece | Ireland |
|---|---|---|---|---|---|---|
| 1970 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 1971 | 10.25 | 11.69 | 10.09 | 22.99 | 14.35 | 21.16 |
| 1972 | 18.72 | 25.31 | 24.16 | 21.91 | 27.76 | 23.82 |
| 1973 | 31.05 | 22.05 | 25.57 | 25.69 | 28.67 | 19.25 |
| 1974 | 24.22 | 3.97 | 7.63 | -0.62 | -12.57 | 7.91 |
| 1975 | 19.42 | 10.08 | 32.43 | 0.49 | 6.48 | 14.85 |
| 1976 | 11.64 | 7.60 | 8.23 | 2.83 | 9.39 | -6.33 |
| 1977 | 18.66 | 4.11 | 7.25 | 15.88 | 32.79 | 19.29 |
| 1978 | 22.05 | 15.43 | 16.78 | 25.94 | 27.33 | 37.43 |
| 1979 | 9.46 | 6.23 | 16.75 | 27.45 | 33.92 | 38.28 |
| 1980 | 14.32 | -13.52 | 14.45 | 16.17 | -8.15 | 26.17 |
| 1981 | -36.43 | -23.63 | -15.32 | -35.77 | -19.24 | -5.40 |
| 1982 | -11.48 | 6.38 | -11.16 | -3.54 | -7.90 | -7.97 |
| 1983 | -5.06 | 0.56 | -4.87 | -0.59 | -6.09 | -15.25 |
| 1984 | -16.88 | -3.00 | -5.21 | -6.29 | -11.88 | -12.41 |
| Mean Growth | 7.867 | 5.233 | 8.484 | 8.039 | 8.204 | 11.486 |

| Members / Year | Italy | Luxembourg | Netherlands | Portugal | Spain | U.K. |
|---|---|---|---|---|---|---|
| 1970 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 1971 | 3.78 | 26.95 | 22.49 | 39.18 | 7.76 | 14.73 |
| 1972 | 12.65 | 27.88 | 22.24 | 25.81 | 25.59 | 28.93 |
| 1973 | 18.35 | 38.95 | 25.87 | 33.37 | 41.63 | 22.01 |
| 1974 | 17.11 | 24.90 | 9.74 | 28.07 | 33.07 | 4.80 |
| 1975 | 12.87 | 16.67 | 16.01 | 4.54 | 16.08 | 7.72 |
| 1976 | -6.99 | -9.70 | 5.11 | 1.72 | -2.78 | -9.01 |
| 1977 | 14.23 | 6.60 | 21.71 | 5.10 | 8.32 | 4.83 |
| 1978 | 19.26 | 18.40 | 28.04 | 9.74 | 18.20 | 32.75 |
| 1979 | 24.60 | 14.01 | 12.13 | 3.41 | 31.79 | 31.93 |
| 1980 | 24.88 | 14.22 | 9.30 | 27.88 | 1.87 | 21.71 |
| 1981 | -7.11 | -19.32 | -23.09 | 1.46 | -12.71 | -9.92 |
| 1982 | -0.73 | -19.09 | -8.04 | 9.20 | -8.86 | -11.39 |
| 1983 | 2.02 | 5.49 | -4.02 | -9.89 | -12.56 | -5.91 |
| 1984 | -1.83 | -9.20 | -7.20 | -30.76 | -12.78 | 1.17 |
| Mean Growth | 9.506 | 9.769 | 9.306 | 10.631 | 10.187 | 9.596 |

TABLE 10.17. ANNUAL GROWTH RATES FOR VA BY CONSTRUCTION OVER PRECEDING YEAR FOR MEMBER COUNTRIES OF THE EC BETWEEN 1970 AND 1984

be seen, coefficients of correlation which are greater than 0.50 were readily achieved by all the EC countries although five countries have r values less than 0.70. The low coefficients of correlation in the context here do not primarily indicate the lack of compatibility when comparing trends between countries but rather serve to point out the high degree of diffusiveness within each individual country. Thus, the higher the degree of diffusiveness, the more difficult it becomes to generalise a linear relationship for predictive purposes.

Table 10.18 shows the ranked order of countries in regressional absolute terms. At the top of the table is France, indicating that the French construction volume is the largest growing market in the EC. This is followed, in turn, by West Germany, Italy, United Kingdom, Spain, Netherlands, Belgium, Greece, Ireland, Portugal, Denmark and, lastly, Luxembourg. The small land mass and population of Luxembourg, and hence her correspondingly Lilliputian construction volume in relation to all the other EC member countries, appears to offer an explanation for Luxembourg's position at the bottom of Table 10.18.

On the other hand, when ranked in regressional relative terms in Table 10.19, Luxembourg is now placed in fifth position. This suggests that although the construction volume in Luxembourg is small, its regressional rate of growth is higher than seven other countries in the EC between 1970 and 1984. From Table 10.19,

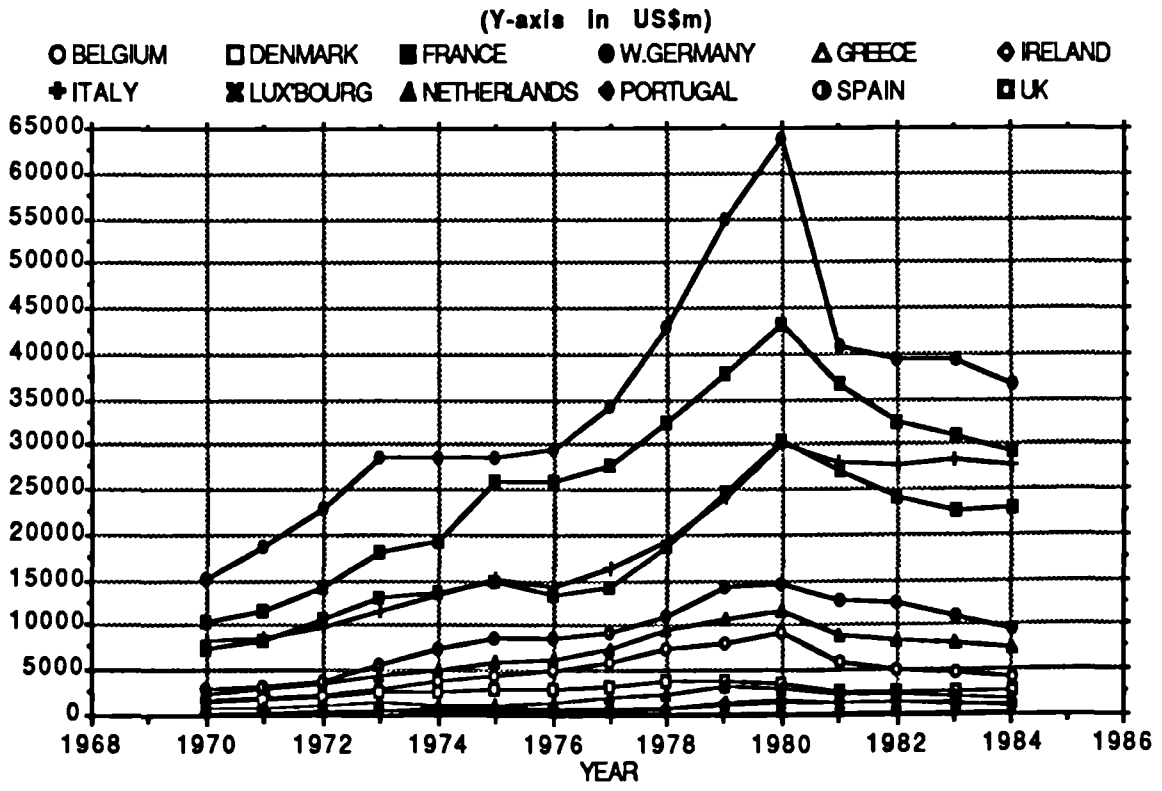



FIGURE 10.31. ESTIMATED VA IN CONSTRUCTION (US$m) BETWEEN 1970 AND 1984 FOR MEMBER COUNTRIES OF THE EC

the Irish regressional construction growth appears to be the fastest in the EC. This is followed, in turn, by Portugal, Spain, Italy, Luxembourg, United Kingdom, France, Netherlands, Greece, Belgium, West Germany and Denmark. Again, this appears to be consistent with the order culled from Table 10.17 which was used to rank countries according to their average annual growth rates over preceding year for each of the country's estimated VA by construction. As both Table 10.17 and Table 10.19 consistently maintain, Ireland's and Denmark's construction growth rates have been billed the fastest and the slowest in the EC respectively.

10.7.4. PERCENTAGE SHARES OF VALUE ADDED IN CONSTRUCTION BY MEMBER COUNTRIES OF THE EC

The analysis undertaken here will be disaggregated, firstly, at the level of the global construction VA and, secondly, at the level of the total construction volume in the EC. The percentage shares of the global construction VA accrued to the member countries of the EC between 1970 and 1984 is outlined in Figure 10.32. This has to be read in conjunction with earlier computations carried out elsewhere which tabulate each country's percentage share of the world construction volume over the fifteen years' period. The results show West Germany as the largest construction market in the EC with an average share of 7.13% over the same time period. The corresponding figures for all the other member countries of the EC, in descending order of size, are : France (5.27%), Italy (3.70%), United Kingdom (3.53%), Spain (1.76%), Netherlands

| Countries | Rate | Rank | r |
|---|---|---|---|
| France | 1838.785 | 1 | 0.835 |
| West Germany | 1614.665 | 2 | 0.616 |
| Italy | 1592.540 | 3 | 0.944 |
| United Kingdom | 1292.804 | 4 | 0.872 |
| Spain | 635.326 | 5 | 0.810 |
| Netherlands | 390.849 | 6 | 0.687 |
| Belgium | 233.496 | 7 | 0.525 |
| Greece | 105.808 | 8 | 0.680 |
| Ireland | 94.755 | 9 | 0.866 |
| Portugal | 73.798 | 10 | 0.882 |
| Denmark | 73.047 | 11 | 0.519 |
| Luxembourg | 11.645 | 12 | 0.745 |

(Note : 1. Rate of growth in US$m. 2. r = coefficient of correlation.)

TABLE 10.18. COUNTRIES IN THE EC RANKED IN REGRESSIONAL TRENDS OF VA BY CONSTRUCTION

| Countries | Rate | Rank | r |
|---|---|---|---|
| Ireland | 32.464 | 1 | 0.866 |
| Portugal | 26.057 | 2 | 0.882 |
| Spain | 21.485 | 3 | 0.810 |
| Italy | 19.016 | 4 | 0.944 |
| Luxembourg | 17.975 | 5 | 0.745 |
| United Kingdom | 17.704 | 6 | 0.872 |
| France | 17.425 | 7 | 0.835 |
| Netherlands | 16.075 | 8 | 0.687 |
| Greece | 13.815 | 9 | 0.680 |
| Belgium | 13.090 | 10 | 0.525 |
| West Germany | 10.590 | 11 | 0.616 |
| Denmark | 4.907 | 12 | 0.519 |

(Note : r = coefficient of correlation).

TABLE 10.19. COUNTRIES IN THE EC RANKED IN REGRESSIONAL TRENDS OF CONSTRUCTION VA INDICES

(1.35%), Belgium (0.97%), Denmark (0.60%), Greece (0.37%), Portugal (0.19%), Ireland (0.17%), and Luxembourg (0.04%). The coefficients of variation for the twelve EC countries' annual percentage shares of the global construction volume within the same time frame are : West Germany (17.01%), France (11.22%), Italy (7.45%), United Kingdom (10.39%), Spain (15.03%), Netherlands (13.11%), Belgium (22.54%), Denmark (26.16%), Greece (16.13%), Portugal (14.93%), Ireland (17.53%), and Luxembourg (18.86%). Although these figures indicate Denmark with the highest coefficient of variation, at 26.16%, it is still lower than those experienced by all the developing member countries of ASEAN dealt with earlier. A comparison of the coefficients of variation between the member countries of ASEAN and the EC has revealed the former to be much greater than the latter. Within the period considered, this appears to suggest a wider fluctuation in percentage shares in the developing countries of ASEAN than in the highly industrialised countries of the EC. The percentage shares of the EC estimated VA by construction accruable to the twelve member countries between 1970 and 1984 are detailed in Table 10.20 and Figure 10.33. Table 10.20 shows the average annual percentage shares of the EC's construction volume for each of the twelve countries. This indicates West Germany with the largest share (28.27%), followed by France (21.02%), Italy (14.91%), United Kingdom (14.14%), Spain (7.03%), Netherlands (5.38%), Belgium (3.82%), Denmark (2.37%), Greece (1.47%), Portugal (0.74%), Ireland (0.69%), and Luxembourg (0.15%) in descending order of size. Their corresponding coefficients of variation are West Germany (9.17%), France (6.25%),

| Members / Year | Belgium | Denmark | France | W. Germany | Greece | Ireland |
|---|---|---|---|---|---|---|
| 1970 | 3.463 | 2.879 | 20.464 | 29.586 | 1.488 | 0.566 |
| 1971 | 3.338 | 2.812 | 19.702 | 31.822 | 1.488 | 0.600 |
| 1972 | 3.240 | 2.881 | 19.998 | 31.714 | 1.554 | 0.607 |
| 1973 | 3.392 | 2.809 | 20.064 | 31.848 | 1.597 | 0.579 |
| 1974 | 3.908 | 2.709 | 20.027 | 29.353 | 1.295 | 0.579 |
| 1975 | 4.135 | 2.642 | 23.497 | 26.131 | 1.222 | 0.589 |
| 1976 | 4.644 | 2.860 | 23.693 | 27.032 | 1.345 | 0.555 |
| 1977 | 4.923 | 2.660 | 22.705 | 27.988 | 1.595 | 0.592 |
| 1978 | 4.894 | 2.501 | 21.594 | 28.707 | 1.654 | 0.662 |
| 1979 | 4.346 | 2.156 | 20.455 | 29.685 | 1.797 | 0.743 |
| 1980 | 4.321 | 1.618 | 20.324 | 29.939 | 1.433 | 0.814 |
| 1981 | 3.463 | 1.558 | 21.698 | 24.242 | 1.459 | 0.971 |
| 1982 | 3.268 | 1.767 | 20.347 | 24.924 | 1.433 | 0.952 |
| 1983 | 3.211 | 1.839 | 20.231 | 25.645 | 1.392 | 0.835 |
| 1984 | 2.818 | 1.883 | 20.247 | 25.373 | 1.296 | 0.772 |
| Mean | 3.824 | 2.372 | 21.016 | 28.266 | 1.470 | 0.695 |
| S.D. | 0.675 | 0.507 | 1.313 | 2.592 | 0.153 | 0.143 |
| CoV | 17.642 | 21.357 | 6.249 | 9.170 | 10.413 | 20.616 |

| Members / Year | Italy | Luxembourg | Netherlands | Portugal | Spain | U.K. |
|---|---|---|---|---|---|---|
| 1970 | 16.242 | 0.126 | 4.721 | 0.549 | 5.738 | 14.179 |
| 1971 | 14.740 | 0.139 | 5.057 | 0.668 | 5.407 | 14.226 |
| 1972 | 13.574 | 0.146 | 5.054 | 0.687 | 5.551 | 14.994 |
| 1973 | 12.836 | 0.162 | 5.082 | 0.732 | 6.282 | 14.616 |
| 1974 | 13.941 | 0.188 | 5.173 | 0.870 | 7.752 | 14.206 |
| 1975 | 13.940 | 0.194 | 5.316 | 0.805 | 7.972 | 13.557 |
| 1976 | 13.043 | 0.176 | 5.621 | 0.824 | 7.797 | 12.410 |
| 1977 | 13.312 | 0.168 | 6.113 | 0.774 | 7.546 | 11.624 |
| 1978 | 12.929 | 0.162 | 6.375 | 0.692 | 7.264 | 12.566 |
| 1979 | 13.071 | 0.150 | 5.799 | 0.580 | 7.767 | 13.451 |
| 1980 | 14.172 | 0.148 | 5.503 | 0.644 | 6.870 | 14.213 |
| 1981 | 16.595 | 0.151 | 5.336 | 0.824 | 7.560 | 16.142 |
| 1982 | 17.558 | 0.130 | 5.230 | 0.959 | 7.988 | 15.245 |
| 1983 | 18.540 | 0.142 | 5.196 | 0.895 | 7.229 | 14.845 |
| 1984 | 19.216 | 0.136 | 5.090 | 0.654 | 6.657 | 15.858 |
| Mean | 14.914 | 0.154 | 5.378 | 0.744 | 7.025 | 14.142 |
| S.D. | 2.159 | 0.020 | 0.439 | 0.119 | 0.899 | 1.261 |
| CoV | 14.474 | 13.036 | 8.163 | 15.949 | 12.798 | 8.918 |

TABLE 10.20. ESTIMATED VA IN CONSTRUCTION EXPRESSED AS A PERCENTAGE OF THE EC's VA BY CONSTRUCTION BETWEEN 1970 AND 1984 : CLASSIFIED ACCORDING TO MEMBER COUNTRIES OF THE EC

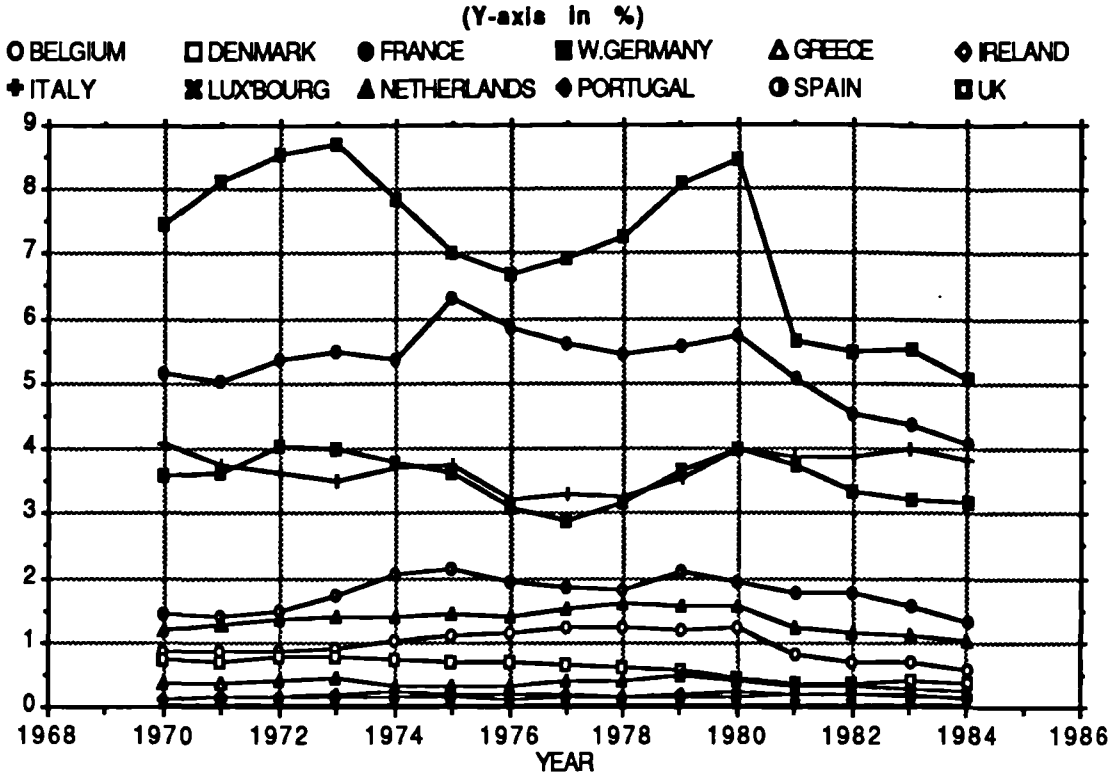



FIGURE 10.32. COUNTRIES' PERCENTAGE SHARES OF ESTIMATED GLOBAL VA BY CONSTRUCTION IN THE EC

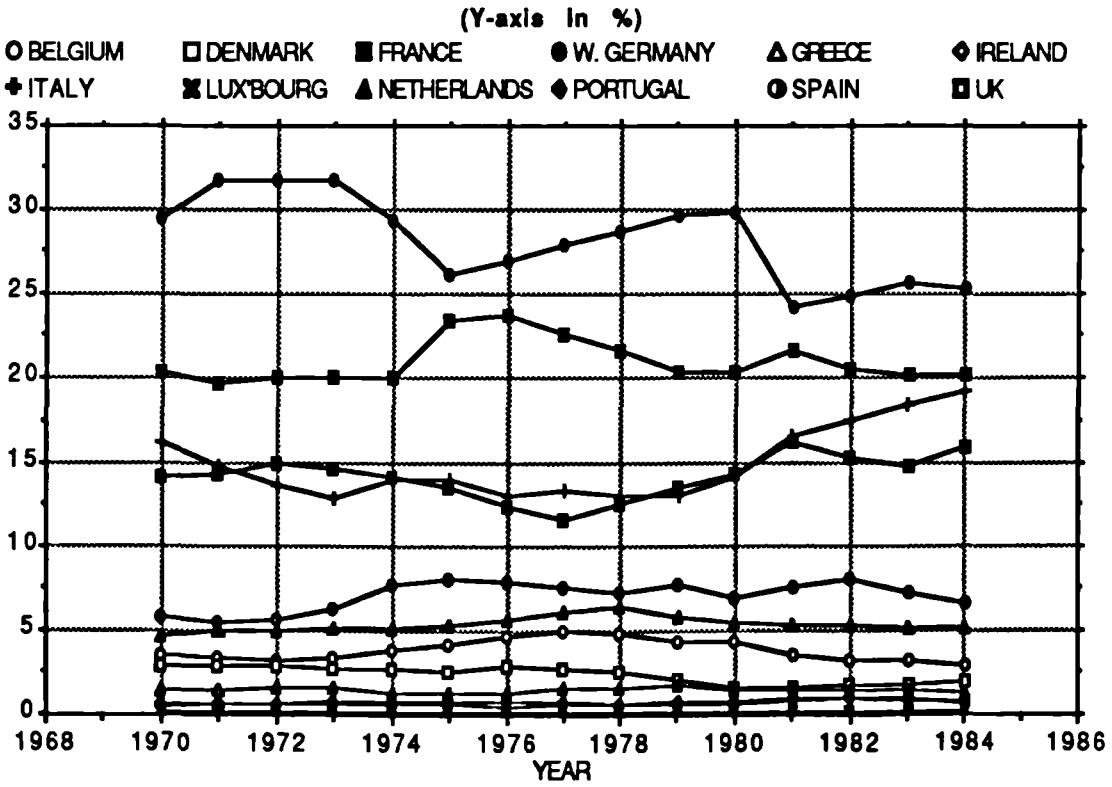



FIGURE 10.33. COUNTRIES' PERCENTAGE SHARES OF ESTIMATED VA BY CONSTRUCTION IN THE EC

Italy (14.47%), United Kingdom (8.92%), Spain (12.80%), Netherlands (8.16%), Belgium (17.64%), Denmark (21.36%), Greece (10.41%), Portugal (15.95%), Ireland (20.62%), and Luxembourg (13.04%). This indicates Denmark with the highest fluctuations in so far as her percentage shares of the EC construction volume is concerned. It also appears to relate well with the similarly high figure for Denmark (26.16%) when compared with all the other member countries of the EC in the computations for their global shares as described above. The coefficients of variation for Denmark at both the EC and global levels are, therefore, the highest among all the member countries of the EC.

Table 10.20 indicates France with the least fluctuation (6.25%) in relation to all the other EC countries. Nonetheless, considered in totality, the coefficients of variation tabulated in Table 10.20 for all the EC countries are still generally lower than those of Table 10.16 for all the ASEAN countries. This again seems to suggest that the variations in percentage share terms, at both the global and community levels, are higher in the developing (i.e. ASEAN) rather than in the developed countries (i.e. EC).

Figure 10.33 is a graphical representation of Table 10.20 which shows West Germany with the largest share of the EC construction market, albeit a seemingly declining one. Like in Figure 10.27 which depicts the ASEAN's case, the trends in Figure 10.33 are similarly so varied as to make the extrapolation of useful generalisations extremely difficult. A visual inspection of the four largest markets in the EC, namely West Germany, France, Italy, and the United Kingdom, discloses a relatively high degree of fluctuation in their shares of the EC construction volume. A transformation of the vertical axis in Figure 10.33 through logarithmic or semi-logarithmic means is not attempted here so that the absolute differences between each country's share of the construction volume can be preserved. Although a transformation may still enable trends to be generalised, it does not however offer similar facilities for distinguishing between absolute differences.

To overcome these problems, Figure 10.34 is an attempt to simplify the comparative analysis between the member countries of the EC. Each country's average annual share of the EC construction volume between 1970 and 1984 has been plotted in Figure 10.34. Here, the contrast between the largest and the smallest markets can be readily discernible.

## 10.8. A COMPARISON OF PROPORTIONALITIES IN ASEAN AND THE EC

A breakdown of the construction industries in both ASEAN and the EC, as analysed above, can be appreciated further in the light of the largest construction markets in the East and the West. From the earlier computations carried out elsewhere, Japan and the United States appear to be the largest single construction market in the Eastern and Western hemisphere respectively. Japan's average annual share of the

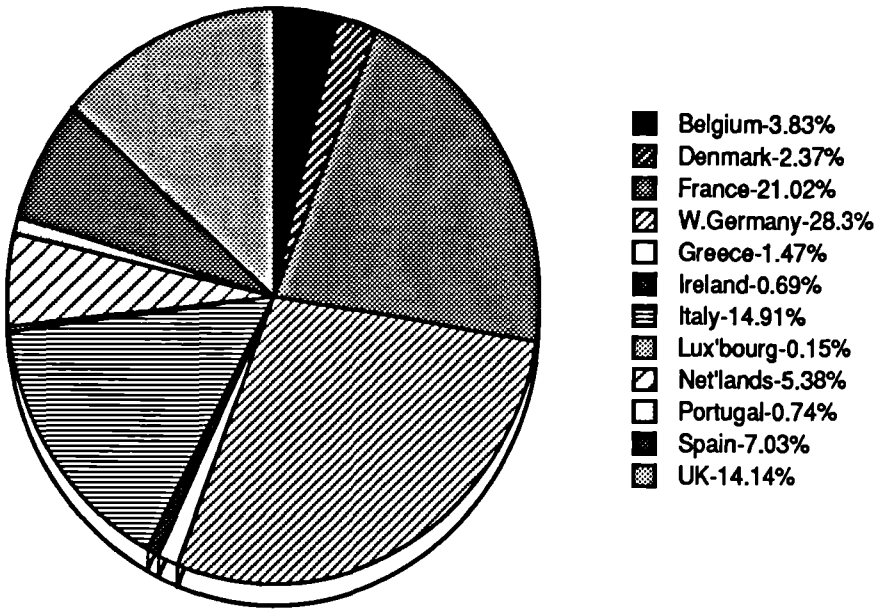



FIGURE 10.34. MEMBER COUNTRIES' MEAN PERCENTAGE SHARES OF THE EC CONSTRUCTION VA BETWEEN 1970 AND 1984

world construction volume between 1970 and 1984 amounts to approximately 11.78% with a variation coefficient of 17.30%. The corresponding figures for the United States are 20.88% and 8.93% respectively. The EC's and ASEAN's average annual shares of the global construction volume as well as their coefficients of variation can be extracted from Table 10.12. These are 25.07% and 9.48% respectively in the EC, while the corresponding figures for ASEAN are 1.19% and 42.87%.

All these indicate the EC as the largest construction market (25.07%), followed by the United States (20.88%), Japan (11.78%), and ASEAN (1.19%) in descending order. Their respective annual percentage shares of the global construction volume are shown plotted in Figure 10.35 where the disparities in size among the four markets can be contrasted readily. Although the EC has consistently maintained a leading share over the other three geographical entities, it appears that this lead has been lost subsequently in 1983 when the United States' market overtook the EC's to become the largest single construction market in the world.

A consideration of the coefficients of variation for Japan, United States, EC and ASEAN shows the ASEAN market with the highest rate of fluctuation (42.87%). The corresponding figures for Japan, United States and EC are 17.30%, 8.93% and 9.48% respectively. Again, based on these figures alone, this would seem to suggest a greater degree of fluctuation in the Eastern than in the Western hemisphere.

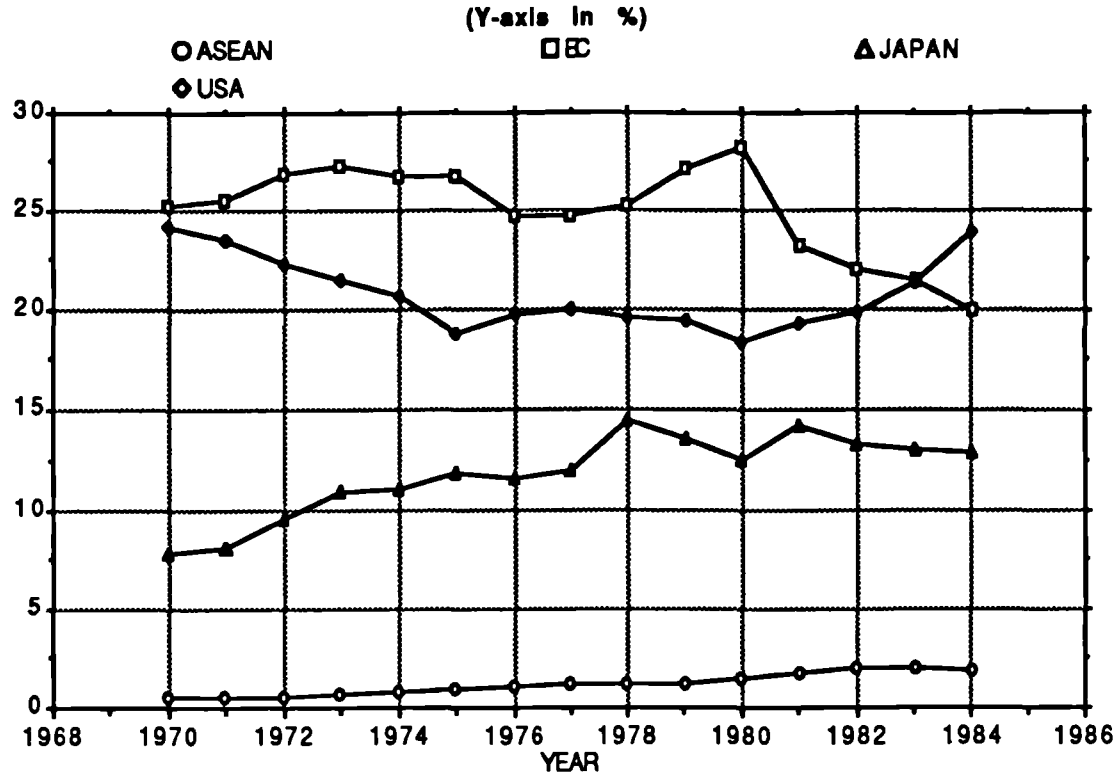



FIGURE 10.35. PERCENTAGE SHARES OF GLOBAL VA IN CONSTRUCTION : A COMPARISON BETWEEN ASEAN, EC, JAPAN AND USA

## 10.9. RANKED CLASSIFICATIONS AT COUNTRY LEVELS

To analyse how the countries are distributed in ranked order, the top twenty countries for each of the four data sets (described at the onset of this Chapter) are sorted out and classified further into developed and developing sovereignties, with the latter again subdivided into non oil-producing countries and oil-producing countries. The classification system for all the countries and territories are in accordance with the UN's recommendations as published in the "Handbook of International Trade and Development Statistics (1985 Supplement)[2]".

The results are shown in Tables 10.21 to 10.24. The regressional rates of change, rankings and correlation coefficients for each of these twenty countries are indicated alongside the names of these countries. The adoption of a cut-off point at twenty is not without a reason. This is because international construction firms are naturally more inclined to direct their attention to markets which appear to offer greater potentials than others. The top twenty countries would, therefore, serve to indicate these potential markets appropriately. In tracing the evolution of international marketing, Terpstra (1987) has similarly highlighted only the top twenty importers and exporters to show the shifting balance of international trade between 1970 and 1985.

Table 10.21, extracted from earlier computations carried out elsewhere, classifies and

ranks the top twenty countries according to their regressional trends of construction VA. As can be seen, a total of eleven developed countries, four developing countries and five oil-producing countries go to make up this group. The performance of time series analyses on the VA by construction for each of the twenty countries has also indicated relatively high coefficients of correlation, the majority of which are in excess of 0.90. The results would seem to suggest that the largest growing markets are, in the main, to be found in the developed countries by virtue of their higher absolute trend growth rates.

Table 10.22, derived as before, classifies and ranks the top twenty countries in accordance with their regressional trends of construction VA indices[8]. There are a total of twelve oil-producing countries and eight developing countries in this group. The absence of developed countries among the top twenty countries ranked by their relative trend growth rates is significantly noticeable. Although the developed countries are much larger markets, the results here would seem to suggest that their relative rates of growth are nevertheless less impressive than those of the developing countries. The findings also suggest that between 1970 and 1984, the construction industries in the developing countries, and in particular the oil-producing countries, have grown at a faster pace than their developed counterparts at the global level. Their respective correlation coefficients are significantly high enough to warrant confident interpretations to be made accordingly. The domination by oil-producing countries in Table 10.22 is noticeable. This perhaps explain why there has been a hive of international construction activities in the 1970s in the Middle-East where most of these oil-producing countries are located. The intensification of construction activities during this period of time would appear to be fledgling efforts channelled towards the various development programmes in these countries. This may have, therefore, accounted for the rapid rates of growth experienced here.

The top twenty countries which are classified and ranked in Table 10.23 are in accordance with their regressional trends of global volume percentage which measure the absolute rate of change for each country's percentage shares of the world construction volumes over the fifteen years' period from 1970 to 1984. A total of two developed countries, eight developing countries and ten oil-producing countries goes to make up this group. In the light of their generally high correlation coefficients, this would seem to suggest that the developing countries' percentage shares of the global construction volumes grew at a faster rate than most other developed countries, apart from Japan, which ranked first. As can be seen from Table 10.21 and Table 10.23, both the absolute volume and absolute percentage share of the global volume in the Japanese construction industry have grown at an extremely rapid rate.

| Developed Countries | | | | Developing Countries | | | | Oil-producing Countries | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Countries | Rate | Rank | r | Countries | Rate | Rank | r | Countries | Rate | Rank | r |
| United States | 9034.72 | 1 | 0.989 | Brazil | 733.09 | 12 | 0.839 | Saudi Arabia | 1502.12 | 7 | 0.957 |
| Japan | 6304.84 | 2 | 0.946 | China | 698.45 | 14 | 0.989 | Iran | 844.22 | 10 | 0.957 |
| USSR | 3176.67 | 3 | 0.983 | South Korea | 520.05 | 16 | 0.959 | Mexico | 729.74 | 13 | 0.783 |
| France | 1838.79 | 4 | 0.835 | India | 508.81 | 17 | 0.975 | Algeria | 489.11 | 18 | 0.987 |
| West Germany | 1614.67 | 5 | 0.616 | | | | | Iraq | 418.40 | 20 | 0.862 |
| Italy | 1592.54 | 6 | 0.944 | | | | | | | | |
| U. K. | 1292.80 | 8 | 0.872 | | | | | | | | |
| Switzerland | 879.47 | 9 | 0.964 | | | | | | | | |
| Canada | 764.44 | 11 | 0.925 | | | | | | | | |
| Spain | 635.33 | 15 | 0.810 | | | | | | | | |
| Australia | 447.98 | 19 | 0.900 | | | | | | | | |

(Note : 1. Rate of growth in US$m. 2. r = coefficient of correlation.)

TABLE 10.21. CLASSIFICATION OF TOP TWENTY COUNTRIES RANKED IN REGRESSIONAL TRENDS OF VA BY CONSTRUCTION

| Developed Countries | | | | Developing Countries | | | | Oil-producing Countries | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Countries | Rate | Rank | r | Countries | Rate | Rank | r | Countries | Rate | Rank | r |
| | | | | Dem. Yemen | 415.79 | 4 | 0.977 | Bahrain | 892.18 | 1 | 0.910 |
| | | | | Yemen | 206.06 | 6 | 0.955 | Saudi Arabia | 723.79 | 2 | 0.957 |
| | | | | Paraguay | 200.76 | 7 | 0.924 | U. A. E. | 438.20 | 3 | 0.961 |
| | | | | Bhutan | 175.52 | 10 | 0.792 | Iraq | 368.73 | 5 | 0.862 |
| | | | | Lesotho | 139.54 | 14 | 0.934 | Tr. & Tobago | 187.59 | 8 | 0.892 |
| | | | | Jordan | 113.44 | 16 | 0.937 | Qatar | 177.26 | 9 | 0.869 |
| | | | | Rwanda | 111.84 | 17 | 0.987 | Syria | 175.33 | 11 | 0.972 |
| | | | | South Korea | 110.02 | 20 | 0.959 | Oman | 173.71 | 12 | 0.962 |
| | | | | | | | | Iran | 157.26 | 13 | 0.957 |
| | | | | | | | | Indonesia | 138.79 | 15 | 0.968 |
| | | | | | | | | Ecuador | 111.23 | 18 | 0.871 |
| | | | | | | | | Kuwait | 111.09 | 19 | 0.987 |

(Note : r = coefficient of correlation).

TABLE 10.22. CLASSIFICATION OF TOP TWENTY COUNTRIES RANKED IN REGRESSIONAL TRENDS OF CONSTRUCTION VA INDICES

| Developed Countries | | | | Developing Countries | | | | Oil-producing Countries | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Countries | Rate | Rank | r | Countries | Rate | Rank | r | Countries | Rate | Rank | r |
| Japan | 0.389 | 1 | 0.854 | South Korea | 0.060 | 4 | 0.938 | Saudi Arabia | 0.200 | 2 | 0.958 |
| Bulgaria | 0.012 | 18 | 0.906 | Brazil | 0.034 | 9 | 0.510 | Iran | 0.098 | 3 | 0.883 |
| | | | | Philippines | 0.024 | 12 | 0.854 | Iraq | 0.054 | 5 | 0.856 |
| | | | | Taiwan | 0.022 | 13 | 0.960 | Algeria | 0.050 | 6 | 0.991 |
| | | | | Malaysia | 0.017 | 14 | 0.853 | Indonesia | 0.046 | 7 | 0.969 |
| | | | | Hong Kong | 0.015 | 16 | 0.912 | Mexico | 0.046 | 8 | 0.539 |
| | | | | Singapore | 0.012 | 17 | 0.780 | U. A. E. | 0.033 | 10 | 0.883 |
| | | | | Thailand | 0.012 | 19 | 0.873 | Nigeria | 0.025 | 11 | 0.592 |
| | | | | | | | | Libya | 0.016 | 15 | 0.701 |
| | | | | | | | | Syria | 0.011 | 20 | 0.965 |

(Note : 1. Rate of growth in percentage. 2. r = coefficient of correlation).

TABLE 10.23. CLASSIFICATION OF TOP TWENTY COUNTRIES RANKED IN REGRESSIONAL TRENDS OF GLOBAL VOLUME PERCENTAGES

| Developed Countries | | | | Developing Countries | | | | Oil-producing Countries | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Countries | Rate | Rank | r | Countries | Rate | Rank | r | Countries | Rate | Rank | r |
| | | | | Dem. Yemen | 101.693 | 4 | 0.960 | Bahrain | 232.143 | 1 | 0.905 |
| | | | | Paraguay | 50.382 | 6 | 0.919 | Saudi Arabia | 196.393 | 2 | 0.958 |
| | | | | Yemen | 50.379 | 7 | 0.955 | U. A. E. | 113.475 | 3 | 0.883 |
| | | | | Bhutan | 44.621 | 9 | 0.746 | Iraq | 97.757 | 5 | 0.856 |
| | | | | Lesotho | 36.168 | 13 | 0.927 | Tr. & Tobago | 45.814 | 8 | 0.861 |
| | | | | Jordan | 26.411 | 16 | 0.924 | Syria | 41.714 | 10 | 0.965 |
| | | | | South Korea | 25.829 | 17 | 0.938 | Qatar | 41.000 | 11 | 0.713 |
| | | | | Rwanda | 25.018 | 18 | 0.948 | Iran | 37.182 | 12 | 0.883 |
| | | | | | | | | Oman | 34.586 | 14 | 0.878 |
| | | | | | | | | Indonesia | 34.268 | 15 | 0.969 |
| | | | | | | | | Ecuador | 24.718 | 19 | 0.832 |
| | | | | | | | | Kuwait | 24.518 | 20 | 0.978 |

(Note : r = coefficient of correlation).

TABLE 10.24. CLASSIFICATION OF TOP TWENTY COUNTRIES RANKED IN REGRESSIONAL TRENDS OF GLOBAL VOLUME PERCENTAGE INDICES

The large concentration of developing countries and oil-producing countries in the grouping shown in Table 10.23 has undoubtedly reflected the growth significance of their percentage shares in the world construction market.

Table 10.24, extracted again from earlier computations undertaken elsewhere, classifies and ranks the top twenty countries according to their regressional trends of global volume percentage indices. The grouping here reflects a total of eight developing, non oil-producing countries and twelve developing, oil-producing countries. There is no developed countries within the top twenty countries of this group. Again, their coefficients of correlation suggest a relatively high closeness of fit, the majority in excess of 0.80. The findings therefore reveal a preponderant content of oil-producing countries with their consistently growing rates of share of the world construction volume between 1970 and 1984. While Table 10.23 takes into account only the countries' annual percentage shares of the global construction volumes, Table 10.24 goes a step further by transforming each country's percentage shares into indices using the corresponding figure in 1970 as a datum over the fifteen years' period.

A joint consideration of Tables 10.21 to 10.24 can enable the following observations to be made between 1970 and 1984 :

1. Developing countries which reflect high regressional trends of construction VA indices appear to have similarly high regressional trends of global volume percentage indices. It seems that the increasing growth rates of these developing countries' construction VA indices have paralleled the increasing growth rates of their global volume percentage indices. This can be appreciated by comparing the close similarities between Table 10.22 and Table 10.24.
2. In considering the top twenty countries alone, both the regressional growth rates of construction VA indices and the regressional growth rates of global volume percentage indices for the developed countries seem to be much lower than those of the developing countries. The pronounced absence of developed countries in both Table 10.22 and Table 10.24 is noticeable.
3. However, when considered in absolute growth terms, the developed countries' larger construction markets tend to reflect higher regressional growth rates of construction VA than those in the developing countries. A domination by the developed countries in Table 10.21 lends credence to this proposition.
4. On a ranked basis, countries appear to offer better market potentials if their volume increases in both absolute and relative terms over a period of time are greater than the corresponding global aggregates in similar terms.

In the earlier computations carried out elsewhere and by iterating the basic information system further, the following additional findings were also revealed :

1. Based on the rankings of each individual country's VA by construction on a global basis, both the smaller and poorer developing countries have a tendency to feature at the lower end of the spectrum.
2. When the construction VA for different countries are ranked accordingly in their respective geographical regions, the ranked position of each country in absolute terms tends to remain relatively consistent in that region. For examples, while Japan has been featured constantly as the largest market in East Asia, the United States, likewise, has also consistently retained its position as the country with the largest construction volume in North America.
3. With some notable exceptions, the percentage shares of the world VA by construction for most of the countries also appear to be relatively consistent over the time period considered.

Without taking into consideration the indigeneous construction capabilities and the socio-political and international trading policies of nations, most of the developed countries seem to offer potentially large construction markets for international firms by virtue of their considerable construction VA in absolute terms. Developed countries such as the United States, Japan and the USSR, for instance, are frequently featured at the top of most quantitative rankings in absolute terms. (This has been confirmed by earlier computations undertaken by the writer elsewhere.) There seems to be a dual relationship which exists alongside this phenomenon. Firstly, in terms of construction volume, some of the developed countries have been persistent in maintaining their positions at the top of the world league. Ironically, the contracting firms from most of these developed countries have ventured overseas in spite of the huge construction volumes in their own home markets. There appears to be a direct relationship between the number of technically sophisticated indigeneous contracting firms in a country and the stage of industrial development of that country. Intense competition would therefore seem to be a norm once the home market becomes potentially larger and more mature. This culminates in a need for firms from the developed countries to diversify abroad when it no longer becomes profitable domestically. Secondly, while there is a desire to evolve along this paradigm, there is also at the same time, a spontaneous reluctance to admit firms from the other developed countries into one's own home market. The experiences and the resistance faced by Japanese firms in both the North American and West European markets, and vice versa, are evidence of this tit-for-tat syndrome[5]. Between 1970 and 1984, Japan's share of the world VA by construction had ranged between 8 to 14%. Despite this huge volume, and hence its perceived attractiveness, foreign contracting firms have nonetheless been unable to participate freely nor secure any substantial foothold in the Japanese construction market[9].

## 10.10. A MEASURE OF REGRESSIONAL CLOSENESS OF FIT

As noted earlier, several writers have warned of the hazards in using statistical relationships to forecast future trends, however desirable these may be. Turin (1973), for instance, has been instrumental in adopting such an approach for generating generic relationships to help the construction industries in the developing countries formulate their policies. This has been undertaken by Turin (1973) despite an acute awareness of the inaccuracies of some of the basic data used. Earlier on, Turin (1972) has even proceeded further to suggest the selective use of such relationships for predicting the future construction volumes of some countries based on the underlying hypothesis that there is a significant relationship between GDP per capita and construction VA per capita. This relationship was further reaffirmed by Cochrane and Wali (1986) in their studies of fifteen countries over a twenty-two years' period between 1960 and 1982. From their computations, Cochrane and Wali (1986) discovered that the average long-term relationship between GDP per capita and construction VA per capita was found to have a correlation coefficient of 0.971. Likewise, Turin (1973) has also computed several relationships using statistical data from the UN. Among others, Turin's (1973) findings include the following propositions which suggest :

1. That the share of construction in the national product and the VA in construction per capita grow with economic development.
2. That the share of infrastructure in total construction output decreases with economic development.
3. That the VA per person employed in construction grows with economic development.
4. That the gap between construction and manufacturing, in terms of net output per person employed and hourly earnings, tends to close with economic development.

While the efforts directed hitherto may be significant in heralding in a new era of research in international construction, there appears to be a glaring lack of indication as to how well these data fit statistically. In most of the major works carried out by others so far, no meticulous attempt has been made to indicate their respective coefficients of correlation. The clearly defined relationships between construction and economic development as espoused are indisputable apart from their inadequacies in annotating how well they fit statistically. Similar works undertaken by Wells (1985) in this direction have also failed to highlight the degree of fit for the relationships postulated.

On the other hand, Edmonds and Miles (1984) appear to have recognised this shortcoming and have apparently taken measures to safeguard the validity of their works. Even where the regressional analyses of the statistical data from over one

hundred countries have revealed an extremely strong linear relationship between VA in construction per capita and GNP per capita, the results were still reported with their corresponding coefficients of determination. Edmonds and Miles (1984) have subsequently computed eight basic relationships involving various construction-related indicators and other economic and demographic variables, logging at the same time, eight coefficients of determination ranging from between 0.196 to 0.901. The methodologies adopted here have highlighted the dangers in using these relationships for casual prediction purposes without first considering their closeness of fit. Although it may be argued that a valid forecast can be expected confidently from a regression analysis which yields a high correlation coefficient, the same cannot be said for others whose coefficients of correlation are obscure, or are at best made up of relatively insignificant values. Other works carried out by Al-Mufti and Cochrane (1986) have indicated clearly the degree of fit for the relationships between economic variables and construction expressed in various modes. In an intersectoral analysis of some forty African countries, Al-Mufti and Cochrane (1986) have found that a poor correlation exists between construction and agricultural activities. They also reported that the impact of the manufacturing sector on the construction industry is much better defined than that of the agricultural sector with a correlation coefficient of 0.701. Another strong relationship was also observed between the construction industry and the mining sector of the countries investigated where the computations showed a coefficient of correlation of 0.983.

The relationships postulated by Turin (1973, 1972), and Edmonds and Miles (1984) may be valid at the macro level as these have been collectively derived in the main using data from countries for only one particular year. As a result, these relationships may not accord well with the findings derived for each individual country using data of a similar nature but collected instead over a span of several years as illustrated by the works of Cochrane and Wali (1986), Wells (1985), and Al-Mufti and Cochrane (1986). It is quite likely that the relationships gathered from a computation for all the countries over a one year period may not be similar with the results of those obtained from computations carried out at individual country level over a longer time frame.

In order that the works of Turin (1973, 1972), Edmonds and Miles (1984), Cochrane and Wali (1986), Wells (1985), and Al-Mufti and Cochrane (1986) may be read within the same context, an attempt was made here to correlate the VA in construction accorded to each country over time. This would serve to provide some insights as to the level of confidence which may transpire in adopting a regressional approach for predicting construction trends on an international basis. To avoid further complications, no attempt was made here to correlate construction VA figures with other economic or demographic indicators for each country. A time series approach

was adopted instead, using information relating to VA by construction culled for the fifteen years' period between 1970 and 1984. However, no further attempt was made to transform the statistical information collected in order to "force" a closer fit.

10.11. CLOSENESS OF FIT RESULTS FOR REGRESSIONAL CONSTRUCTION VALUE ADDED AND REGRESSIONAL CONSTRUCTION VALUE ADDED INDICES

The findings here are to be read in conjunction with Table 10.25 and Figures 10.36 to 10.38. As noted earlier, because construction VA indices, using 1970 as the base year, are derived in the main from construction VA, a single set of correlation coefficients was applicable in both instances after their respective regression analyses were performed. Summarised in Table 10.25 and depicted graphically in Figure 10.36, the findings revealed that more than 62% of the one hundred and eighty countries considered have correlation coefficients of less than 0.90. This literally means that only slightly more than one-third of all the countries considered have a correlation coefficient high enough to warrant confident forecasts to be made based on their respective time series regression formula (y=a+bx). Forecasts with high level of confidence are taken here to mean those derived from regression analyses which yield correlation coefficients in excess of 0.90. This contention is, however, dependent on the purpose for which the forecasts are required.

One would have expected a concentration of developed countries within this band (i.e. r between 0.90 and 1.00) given their higher degree of stability over developing countries in most of the aspects considered. However, an observation of the country

| Coefficients of correlation | No. of occurrences | Percentage of total | Cumulative total (%) |
|---|---|---|---|
| between 0 - 0.099 | 0 | N.A. | N.A. |
| 0.1 - 0.199 | 5 | 2.778 | 2.778 |
| 0.2 - 0.299 | 2 | 1.111 | 3.889 |
| 0.3 - 0.399 | 5 | 2.778 | 6.667 |
| 0.4 - 0.499 | 8 | 4.444 | 11.111 |
| 0.5 - 0.599 | 9 | 5.000 | 16.111 |
| 0.6 - 0.699 | 22 | 12.222 | 28.333 |
| 0.7 - 0.799 | 18 | 10.000 | 38.333 |
| 0.8 - 0.899 | 44 | 24.444 | 62.777 |
| 0.9 - 1.000 | 67 | 37.222 | 100.000 |
| Total = | 180 | 100.000 | |

TABLE 10.25. A SUMMARY OF CORRELATION COEFFICIENTS FOR CONSTRUCTION VA REGRESSIONAL TRENDS

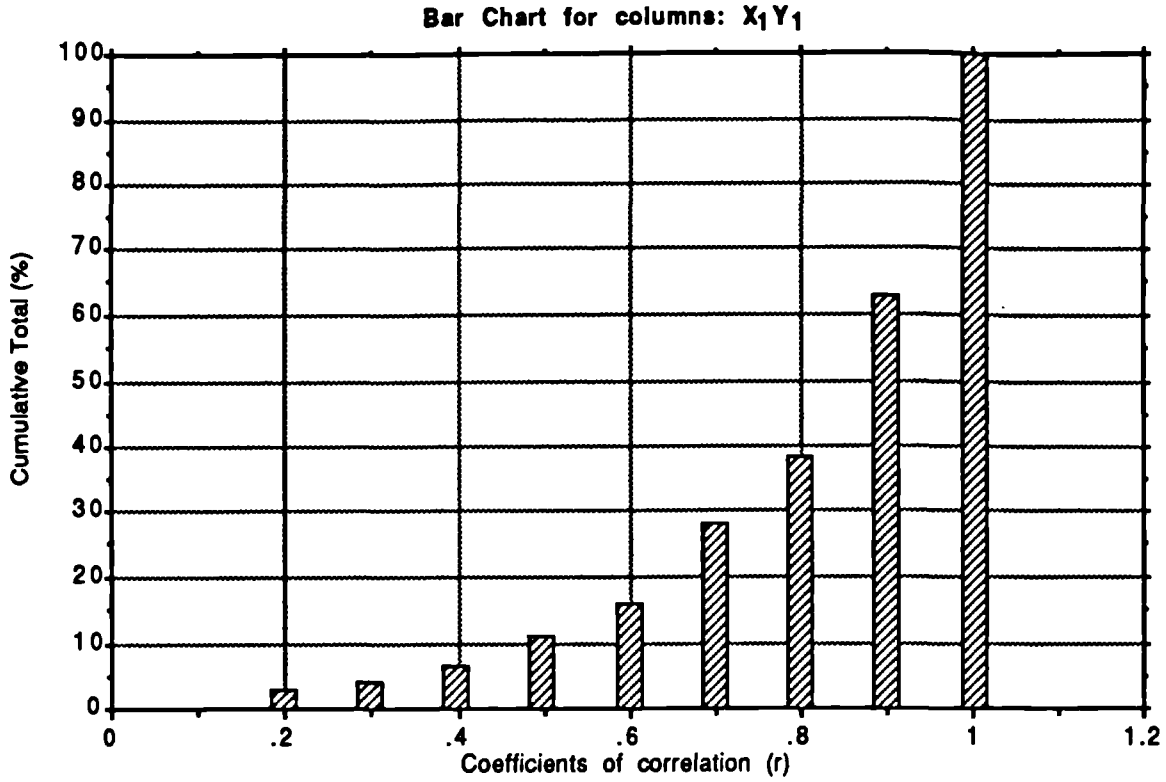



FIGURE 10.36. CUMULATIVE PERCENTAGE TOTAL VERSUS CORRELATION COEFFICIENTS FOR CONSTRUCTION VA REGRESSIONAL TRENDS

types - from earlier computations carried out elsewhere - which fall within this band suggests a weak relationship. The diversity of developed, developing and socialist economies which are represented here are so disparate as to make generalisation impossible not only within this band but also in all other bands.

On the other hand, the above computations have also shed some interesting findings when all the one hundred and eighty countries are ranked in descending order of their regressional trends for construction VA in US$m. As the rankings show, the larger and richer countries appear to have regressional trends in construction VA terms which are significantly greater than those of most other smaller developing countries. Although this seems obvious enough logically, the rankings obtained from this analysis can help to indicate the extent of the intervals between various countries. By way of illustration, the regressional growth rate in absolute volume terms in the USSR (i.e. US$3176.67m) appears to be one-third that of the United States' (i.e. US$9034.72m) and half that of Japan's (i.e. US$6304.84m). The United States, by far, provides the highest regressional trend in construction VA terms, a figure which has yet to be surpassed by any other countries.

Other computations were also carried out which rank all the countries considered in descending order of their regressional construction VA after these have been converted to indices using their corresponding figures in 1970 as the datum. This has

the effect of transforming the absolute measure described above into a relative measure for indicating the extent to which the regressional trends for construction VA in volume terms have changed over the same time period. Upon transformation and after regression analyses were carried out for every country, the rankings have subsequently revealed findings which are substantially different from those reflected above. The analysis here shows that most of the countries at the upper end of the scale now tend to be developing or industrialising entities. Considered jointly, both sets of analysis seemed to suggest that the developed nations tend to have larger construction markets but their relative rates of growth in volume terms are generally lower than their corresponding counterparts in the developing countries. Likewise, the construction markets in the developing countries tend to be smaller under comparison with their counterparts in the developed countries but their rates of growth in volume terms may be substantially higher.

The implication for marketing opportunities appears to be clear enough. Decisions may therefore be taken within the context of a large market with slow growth or a small market with rapid growth.

Figure 10.37 and Figure 10.38 are attempts made to place the two data sets, relating to the construction VA for one hundred and eighty countries, into perspective with their corresponding correlation coefficients. To reiterate, these data sets are :

1. Data set 1 : regressional trends of construction VA.
2. Data set 2 : regressional trends of construction VA indices (base year = 1970).

As both Figures 10.37 and 10.38 show, countries which have high regressional construction VA trends and high regressional construction VA indices trends tend to yield higher correlation coefficients for the few isolated cases depicted. The investigations in Figure 10.37 revealed that because of their higher level of stability, developed countries appeared to have higher regressional construction VA trends with correspondingly higher correlation coefficients. Similarly, Figure 10.38 indicates a tendency for some of the higher correlation coefficients to be related with higher construction VA indices trends. A majority of the countries has, however, remained concentrated at the upper ends of both the correlation coefficient axes in Figures 10.37 and 10.38. A considerable number of cases had also returned substantially low coefficients of correlation. Nevertheless, regression functions with low r values are still meaningful because of their usefulness in demonstrating the non-linear absolute and relative growth of the construction volume in a particular country. This can, in turn, give ample warning to the market researcher over the use of forecasting techniques to project future volume and growth as these may not necessarily be accompanied by a high level of confidence. On the other hand, countries with high correlation coefficients appear to indicate their commitment to a linearly regulated growth for their construction industries.

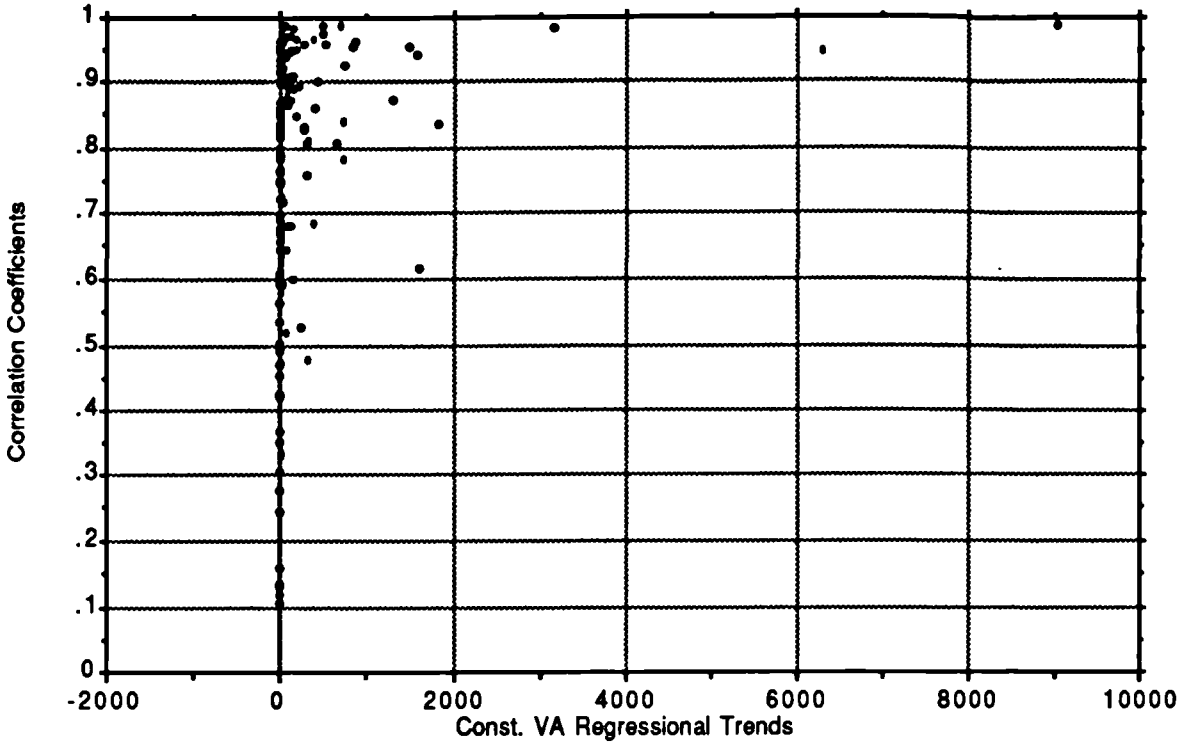



FIGURE 10.37. CORRELATION COEFFICIENTS VERSUS CONSTRUCTION VA REGRESSIONAL TRENDS

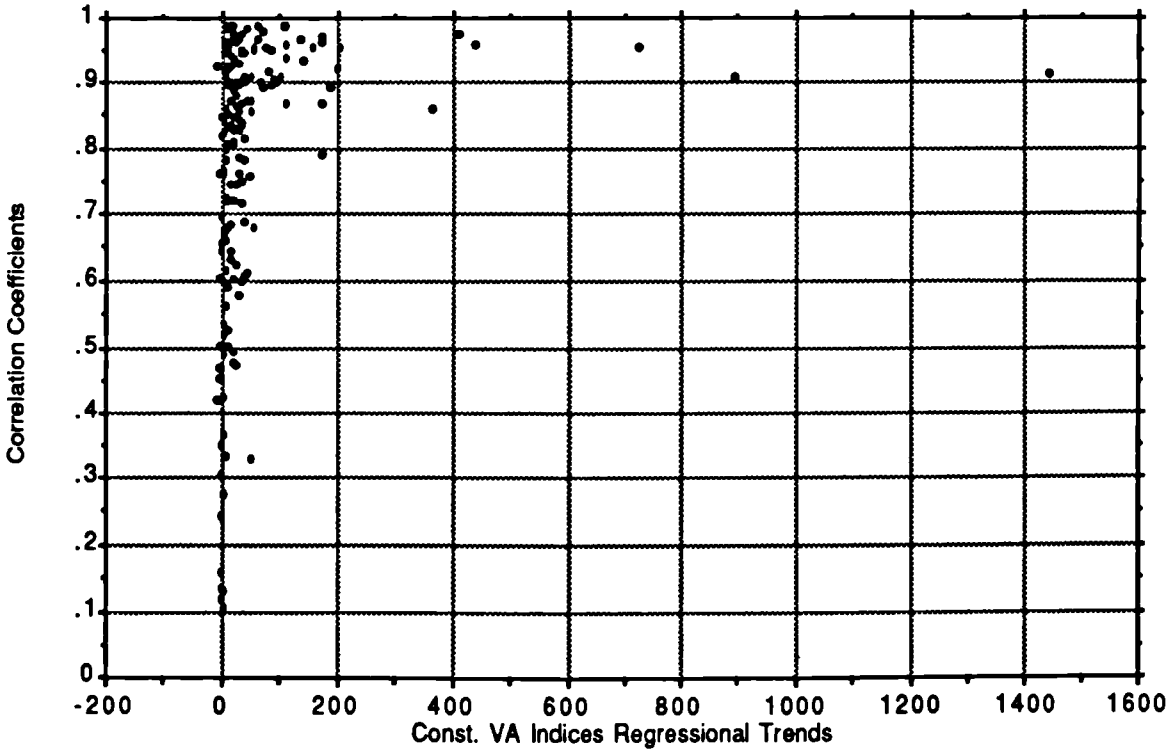



FIGURE 10.38. CORRELATION COEFFICIENTS VERSUS CONSTRUCTION VA INDICES REGRESSIONAL TRENDS (BASE YEAR = 1970)

From the clustering effects shown in both Figures 10.37 and 10.38, two phenomena may be observed. Firstly, there are countries which fall towards the extreme ends of the vertical axis in both Figures 10.37 and 10.38. Secondly, for some countries, a high regressional trend of construction VA may not necessarily generate a correspondingly high regressional trend of construction VA indices, and vice versa. These findings would seem to support earlier propositions which suggest that :

1. Countries which have large construction markets may not necessarily display exceedingly high growth rates. As pointed out earlier, these are normally developed countries.
2. Countries which have small construction markets do often experienced high rates of expansion in their construction activities. Developing countries usually fall within this category.

On a worldwide basis, as the distributions in Figures 10.37 and 10.38 indicate, both the concentration therein appears to be located towards the higher ends of the vertical correlation coefficients' axes. However, the overall results seem to reflect a relatively weak closeness of fit for quite a substantial number of countries. A high level of confidence for global prediction purposes is, therefore, doubtful.

## 10.12. CLOSENESS OF FIT RESULTS FOR REGRESSIONAL GLOBAL VOLUME PERCENTAGE AND REGRESSIONAL GLOBAL VOLUME PERCENTAGE INDICES

This section here is to be read in conjunction with Table 10.26 and Figures 10.39 to 10.41. As the preceding analysis has already shown, a single set of correlation coefficients was similarly obtained here for both the regression analysis of global volume percentage and the regression analysis of global volume percentage indices

| Coefficients of correlation | No. of occurrences | Percentage of total | Cumulative total (%) |
|---|---|---|---|
| between 0 - 0.099 | 10 | 5.556 | 5.556 |
| 0.1 - 0.199 | 12 | 6.667 | 12.223 |
| 0.2 - 0.299 | 17 | 9.444 | 21.667 |
| 0.3 - 0.399 | 8 | 4.444 | 26.111 |
| 0.4 - 0.499 | 16 | 8.889 | 35.000 |
| 0.5 - 0.599 | 13 | 7.222 | 42.222 |
| 0.6 - 0.699 | 18 | 10.000 | 52.222 |
| 0.7 - 0.799 | 20 | 11.111 | 63.333 |
| 0.8 - 0.899 | 28 | 15.556 | 78.889 |
| 0.9 - 1.000 | 38 | 21.111 | 100.000 |
| Total = | 180 | 100.000 | |

TABLE 10.26. A SUMMARY OF CORRELATION COEFFICIENTS FOR PERCENTAGES OF GLOBAL VOLUME REGRESSIONAL TRENDS

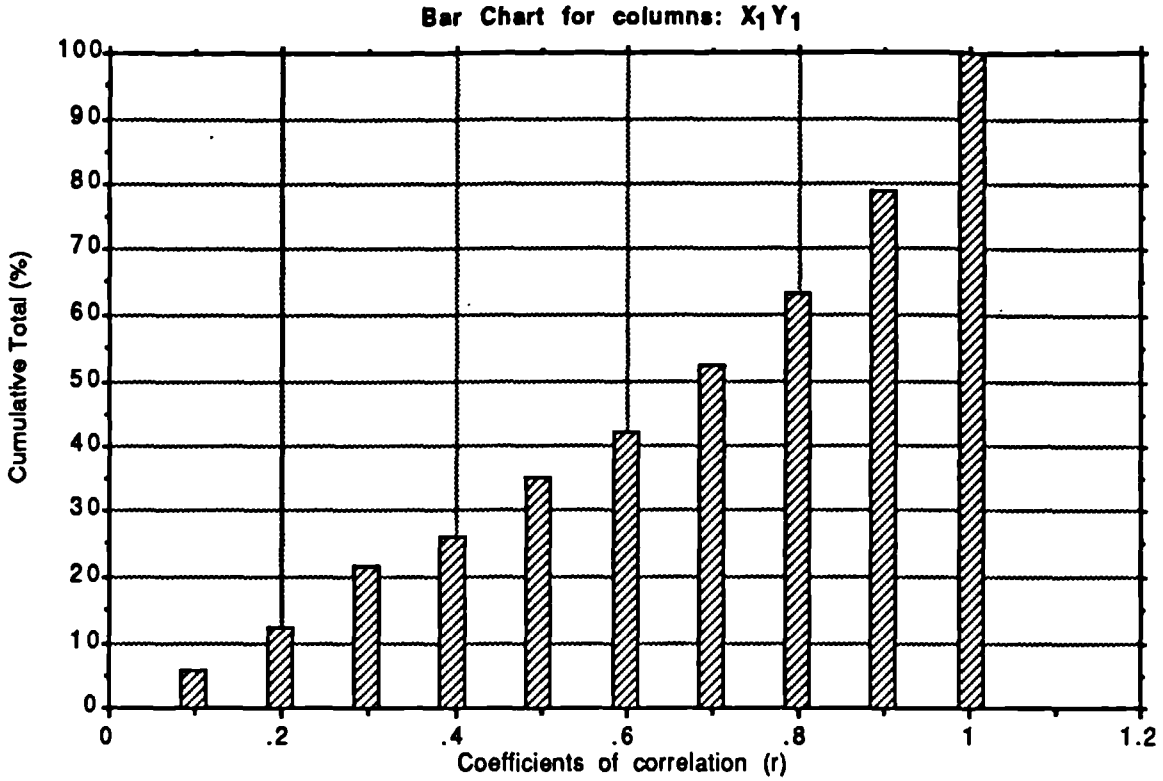



FIGURE 10.39. CUMULATIVE PERCENTAGE TOTAL VERSUS CORRELATION COEFFICIENTS FOR PERCENTAGES OF GLOBAL VOLUME REGRESSIONAL TRENDS

because the latter have been derived fundamentally from the former. The results of this set of correlation coefficients are grouped accordingly, as before, in Table 10.26 and plotted against the grouped cumulative percentage total in Figure 10.39. Both Table 10.26 and Figure 10.39 revealed that more than 78% of all the countries considered have correlation coefficients less than 0.90. This implies that less than 22% of all the countries considered have correlation coefficients high enough to allow forecasts to be carried out confidently. In considering the data between 1970 and 1984 alone, it would appear that the majority within this band (i.e. correlation coefficients between 0.90 to 1.00) is made up of developing countries. This would seem to suggest that in between the fifteen years' period considered, the growth rates of the construction industries in the developing countries have increased at a faster pace than most of the other developed countries. To the extent that this is true, this would mean that the percentage share of the world construction volume in the developing countries has been growing steadily.

Earlier computations carried out elsewhere have also showed a preponderant clustering of developing countries among the upper echelons of all rankings relating to global volume percentage variables. When ranked in descending order of regressional global volume percentage, apart from Japan, there is a domination by developing and newly industrialising countries among the higher hierarchy.

Similar results were also obtained for the regressional global volume percentage indices where there was a significant presence of developing countries and territories towards the top of the ranking. Viewed from a zero-sum perspective, it can be conjectured that the growth in percentage share in the developing countries would correspondingly lead to a proportionate reduction elsewhere along the same line in the developed world. As shown earlier in Table 10.4, the persistent growth in percentage shares in the developing countries between 1970 and 1984 have enabled the following observations to be made :

1. There has been a gradual reduction in the percentage shares of global construction volume in the developed countries.
2. There has also been a dramatic reduction in the percentage shares of the world construction volume for the socialist countries of Eastern Europe.
3. The percentage shares of global construction volume in the socialist countries of Asia have remained relatively unchanged.

In effect, the percentage shares of the world construction volume in the developing countries over this period of time have appeared to increase by almost two-folds.

Based on these findings alone, the message for the international marketer of construction services and products is clear. In addition to the findings expounded earlier, the analysis here seems to promote the growing attraction of the construction markets in the developing countries further because of their consistently growing share of the world total construction volume. These observations can benefit from the works of Livingstone's[10] who has classified all countries into four broad categories to ease the process of formulating strategies appropriate for export marketing. Livingstone has proposed a matrix of nations divided into :

1. Large and rich countries.
2. Large and poor countries.
3. Small and rich countries, and
4. Small and poor countries.

Although this matrix is highly desirable for practical purposes, an attempt to classify the findings of this chapter within the framework postulated by Livingstone was, however, abandoned for its lack of clarity in generating the appropriate marketing strategies.

It must be pointed out again that the high correlation coefficients (i.e. r between 0.90 and 1.00) referred to earlier have helped to provide not only an indication of the extent to which growth in the regressional percentage shares of the world construction volume for the developing countries has increased, but also an affirmation of their consistent efforts directed to achieving a high rate of construction growth as a means to industrialisation and development. Figures 10.40

and 10.41 is an attempt to place the next two data sets for one hundred and eighty countries into perspective with their respective coefficients of correlation. To reiterate, these two data sets are :

1. Data set 3 : regressional trends of global volume percentage.
2. Data set 4 : regressional trends of global volume percentage indices (base year = 1970).

The sharp contrast between the distributions in Figure 10.40 and Figure 10.41 is clearly discernible. While the distributions in Figure 10.40 have clustered around the origin of the horizontal axis, these have also appeared to be concentrated at the upper end of the vertical correlation coefficients' axis. On the other hand, Figure 10.41 shows a distribution which indicates that some of the countries with high regressional global volume percentage indices trends tend to have higher coefficients of correlation. On the other hand, Figures 10.40 and 10.41 also show many cases with low regressional trends and low correlation coefficients.

Turning now to Figure 10.40 which deals with the global volume percentage regressional trends, it does not seem unreasonable to postulate that the changes in percentage terms for each country are, not unexpectedly, both small and gradual. A sensitivity analysis, carried out earlier in this Chapter, using global VA by construction for 1984 had revealed a shift of $\pm$ US$7220.52m for every percent change in global volume percentage in either direction. As a result of this extremely delicate sensitivity, one would therefore expect the percentage share of the world construction volume in each country to be relatively constant over the years. This perhaps explains the straight-line tendency in Figure 10.40, where apart from the larger developed countries such as the United States, Japan, the USSR, West Germany, France, Italy, and the United Kingdom, etc., most other countries have less than one percent share of the global construction volume. Earlier computations carried out elsewhere which expressed the estimated VA in construction of each country as a percentage of the world VA by construction between 1970 and 1984 for one hundred and eighty countries have lent support to this proposition. It can be seen from these computations that there has not been any radical increase or reduction in most countries throughout the fifteen years' period considered. A result of this tendency would therefore yield a narrower and lower range of regressional trends for global volume percentage, thus accounting for the predominately straight-line distribution in Figure 10.40. The findings of this analysis may offer two implications for decision-making in marketing. Firstly, in the case of firms which are contemplating overseas construction markets worldwide, it would pay to find out what percentage share of the global construction volume each country has and how the potentials within each individual country can match the firm's objectives for overseas ventures. It would not be viable for a huge international construction conglomerate

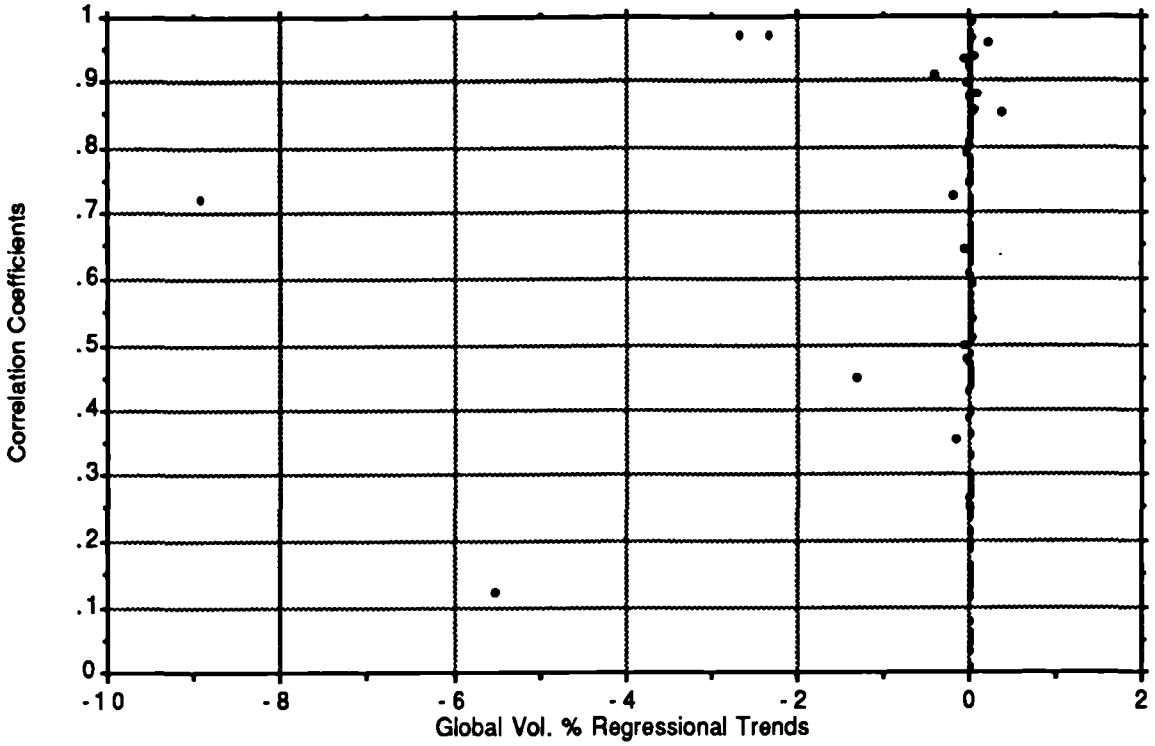



FIGURE 10.40. CORRELATION COEFFICIENTS VERSUS GLOBAL VOLUME PERCENTAGE REGRESSIONAL TRENDS

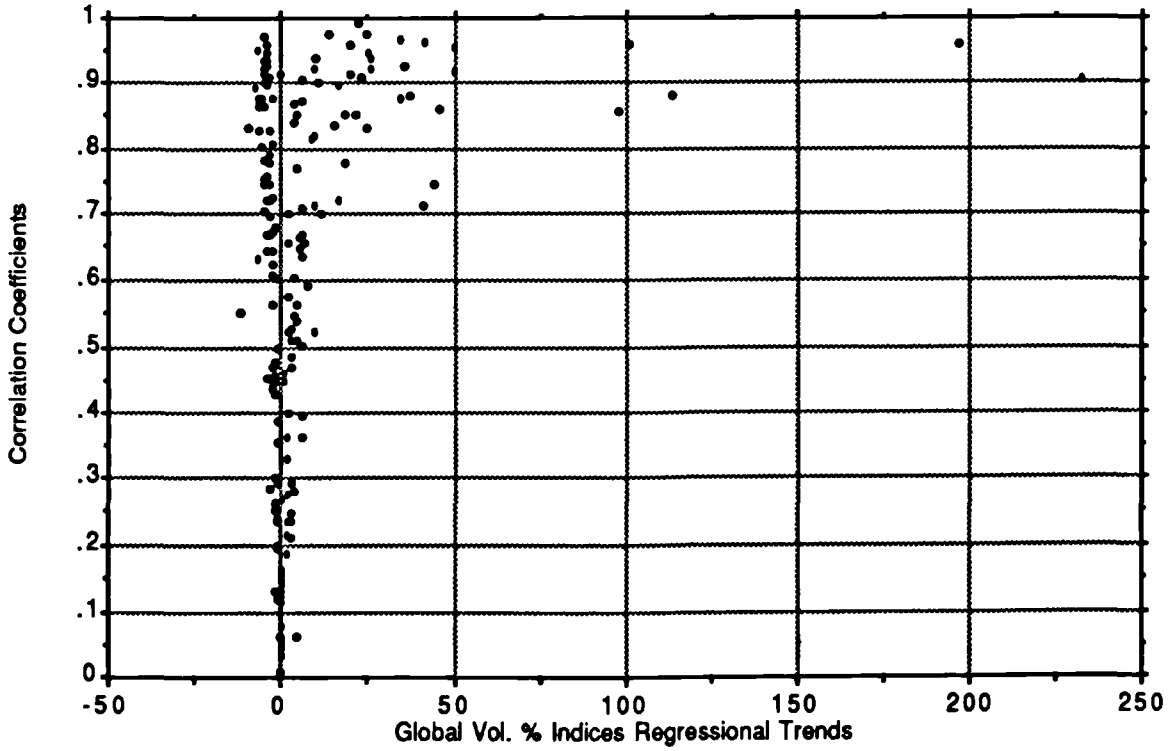



FIGURE 10.41. CORRELATION COEFFICIENTS VERSUS GLOBAL VOLUME PERCENTAGE INDICES REGRESSIONAL TRENDS (BASE YEAR = 1970)

to seek entry into a foreign market only to discover later that its resources cannot be utilised optimally or even when these can be satisficed, that the foreign market in question can only offer a limited capacity which cannot sustain long-term participation. Unless resources may be allocated and diverted spontaneously to other countries, the consequences can be dire. The only ramification would be for firms to direct their attention to a country or a combination of countries which have a potential capacity - expressed in percentage share of the global construction volume - commensurate with their resource availability. However, unless extremely small countries or territories are involved, the concern here would not normally pose significant problems because, in any case, the potential construction volume in any reasonably sized country would far exceed the resource capacities of most international firms.

Secondly, having ascertained the percentage shares of the world construction volume in the country or countries earmarked for entry or continued operations, there appears to be a further need to appreciate that these percentage share figures are unlikely to vary or change substantially over time as to cause dramatic shifts in marketing opportunities. The zero-sum syndrome mentioned earlier does not seem to has much impact when this is considered in totality because the differences are now spread over one hundred and eighty countries. A decision made to diversify from Country A to Country B based on the assumption that "Country B's share of the world construction volume has grown by several percent over the past years", would, as the findings here have revealed, appear to be untenable. Nevertheless, the analysis has highlighted some exceptions to this rule; the two notable examples in the non-socialist world being Japan and Saudi Arabia, whose percentage shares over the fifteen years' period have fluctuated between 7.76% to 14.47%, and 0.10% to 2.77% respectively.

It can be seen in both Figures 10.40 and 10.41 that there are instances of negative trends. These indicate the decline of some countries' regressional absolute and relative growth rates for their respective shares of the world VA by construction. Both these figures, in effect, show many countries with negative growth rates. In relating these figures with their respective correlation coefficients, again the earlier computations have revealed that more than 60 counts (i.e. approximately one-third of all the one hundred and eighty countries considered) have closeness of fit less than 0.50. This immediately points to the danger in adopting too casual an attitude for making global forecasts if the regressional functions have displayed relatively low coefficients of correlation.

In tandem with both Figures 10.37 and 10.38, Figure 10.40 and Figure 10.41 must also be read in conjunction with their correlation coefficients along the vertical axes. Again, from visual inspections of the mappings, these do not appear to offer facilities

for making confident forecasts of both the global volume percentage and global volume percentage indices for most countries worldwide by virtue of their substantial distributions toward the lower ends of the vertical correlation coefficients' axes.

## 10.13. A SUMMARY OF GLOBAL CONSTRUCTION MARKETS' SIZE AND GROWTH TRENDS

It would be of interest to summarise, on a global basis, what has been expounded so far. For the purpose of export marketing, the size and growth trends of each market could serve as useful denominators for contrasting between markets. There is some justification in adopting this approach based on Seymour's (1987) work in the multinational construction industry where firms tend to be attracted not only to the potentially larger markets, but also to markets which mirror favourable growth rates. In the context here, these will be disaggregated and dealt with at both the regional and country levels. Graphically distorted maps are used here to create the requisite effects for visual impact. These, in effect, will represent models of the global construction markets which correspond to their percentage shares of the world VA by construction and their growth rates respectively. Although numerous projection techniques (for example, Mercator's Projection, Zenithal Projection, etc.) are available for mapping a two-dimensional perspective of the world, these are, however, found to be unduly complicated for the purpose required in this thesis. Projections suggested by cartographers to provide an accurate portrayal of the world have not been conclusive so far. Although a two-dimensional map on a flat piece of paper can provide a convenient solution for visualising the whole earth at once, this approach will however distort the true picture of the earth in some way since the skin of a round ball will not simply lie flat[11]. A search was also made for suitable computer software packages which are able to map out the size and growth specifications at both the regional and global levels. Upon enquiries, one programme - Apple Macintosh's Filevision™ - was recommended by the Department of Photogrammetry and Surveying at University College London but this was found to be lacking in so far as the desired visual impact was concerned. Filevision™ can only present hard copies of the input data by a system of shadings which is unable to convey clearly the absolute and relative intensities of construction which prevail in different countries and regions. A decision was therefore made to map out all the global models manually.

Figure 10.42 models the average percentage shares of the world VA by construction between 1970 and 1984 for nineteen global regions where the dominating size of the markets in North America, Europe, USSR and East Asia is clearly noticeable. The apparent disparity between the regions in the North and those in the South is also significant. This lends support to the well-known economic assertion which distinguishes between the richer North and its relatively poorer cousins in the

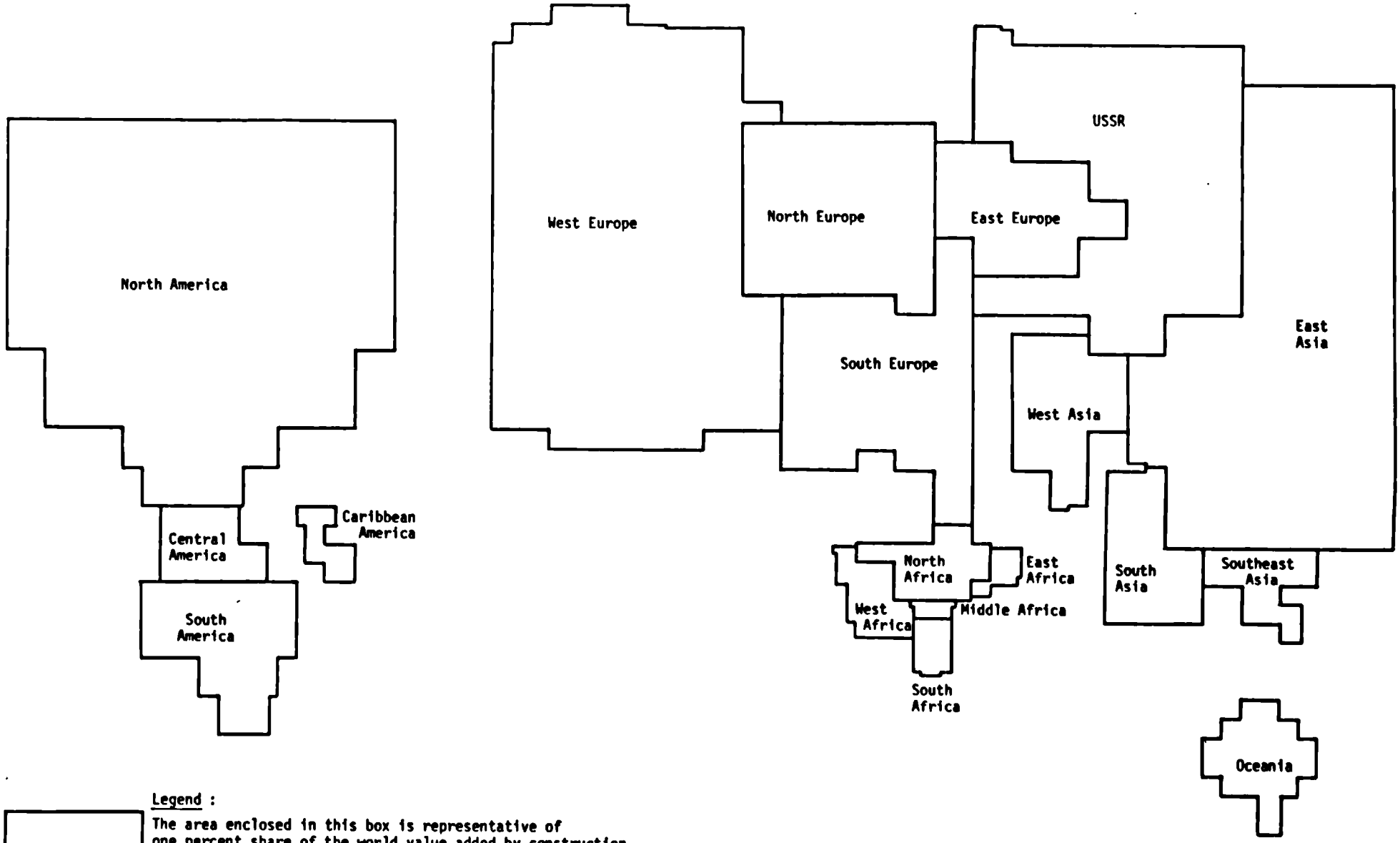



FIGURE 10.42 : AVERAGE PERCENTAGE SHARES OF WORLD VALUE ADDED BY CONSTRUCTION BETWEEN 1970 AND 1984 FOR NINETEEN GLOBAL REGIONS

southern hemisphere - an issue which has been highlighted by the Brandt Commission (1980). The North-South divide in Figure 10.42 shows distinctively the regions in the North which overshadow their much smaller counterparts in the South. As Keegan (1984) in his analysis of the economic environment has noted,

> "The concentration of wealth in a handful of large industrialised countries is the most striking characteristic of the global economic environment (Keegan, 1984:60)."

Since most of the developed and industrialised countries are located in the northern hemisphere, Figure 10.42 seems to suggest a strong relationship between global economic development and the volume of construction.

In contrast, Figure 10.43, which depicts the average annual percentage growth of VA by construction over preceding year between 1970 and 1984 for the same nineteen global regions, shows a reversal of this domination. Here, the regions in the South now command a much larger attention than those in the North. Read together, both Figure 10.42 and Figure 10.43 illuminate the global relationship between absolute size and growth trends at the regional level. A notable example can be derived from the African continent. Hence, while the entire African share of the world construction VA in Figure 10.42 is miserably small in contrast to its mammoth land mass, its corresponding growth trends shown in Figure 10.43 are considerably more significant. This again invokes the North-South phenomenon where Figure 10.43 indicates clearly a greater concentration of regions with higher growth trends in the southern hemisphere. This observation seems to suggest the determined efforts put in by the predominately developing countries in the South to generate economic development through a policy of rapid investment in construction programmes over a short-term period.

Figure 10.44 summarises each region's average annual growth rate in relation to the global average annual growth rate. From computations of current market prices between 1970 and 1984, the world average annual percentage growth rate was found to be approximately 9.75%. It can be seen from Figure 10.44 that ten regions have average annual growth rates greater than the global growth rate. Correspondingly, there are nine regions which have average annual growth rates falling below the global growth rate. At both extremes, there are West Asia and East Europe whose average annual growth rates are 12.99% above and 3.33% below the global growth rate respectively.

### 10.13.1. REGIONAL CONTRIBUTIONS TO INCREASE OF GLOBAL CONSTRUCTION VOLUME

From a marketing point of view, the absolute size and relative growth of each region are two important criteria which management must consider in adjudicating the attractiveness or otherwise of each regional market. However, in considering the

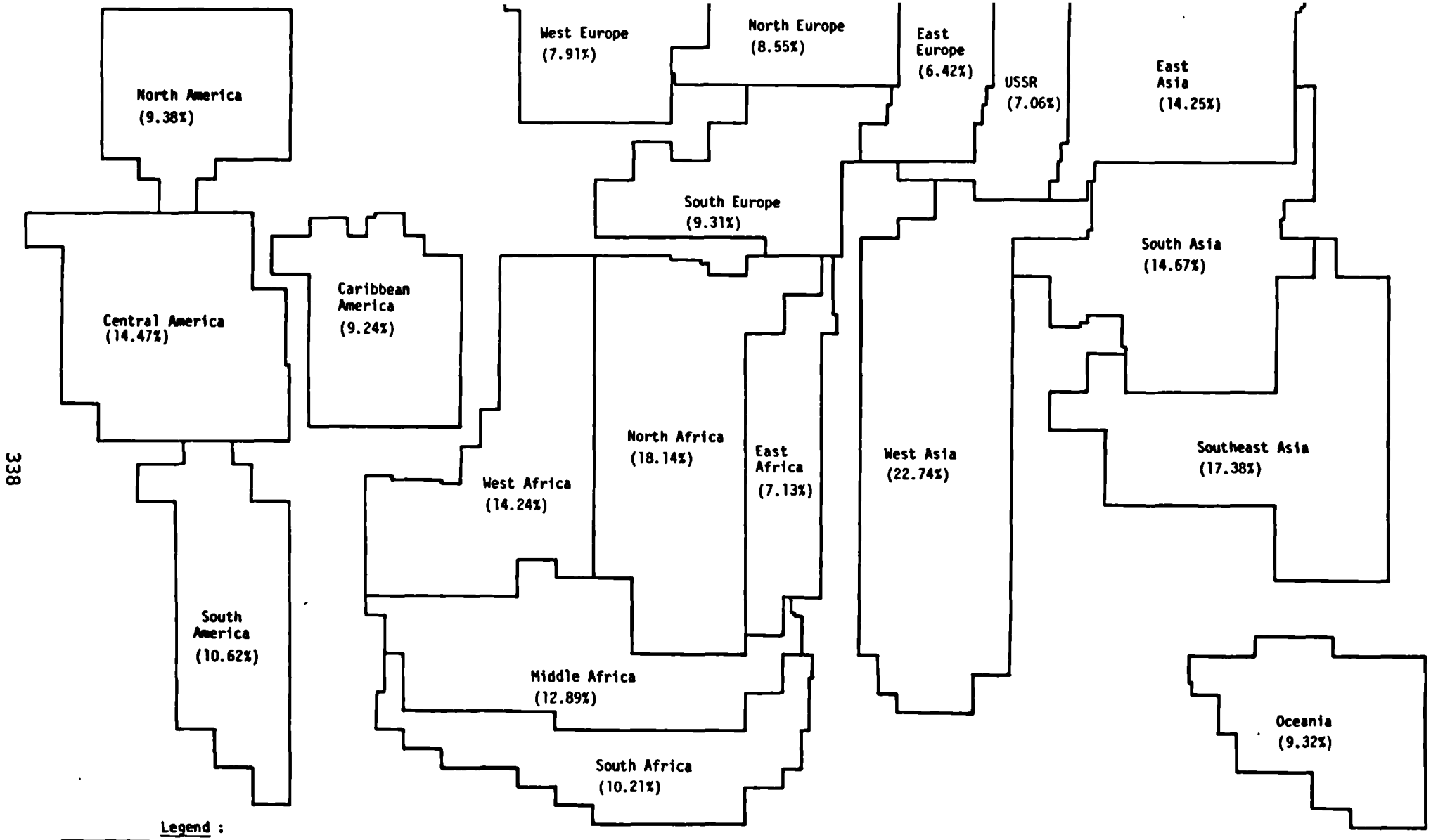
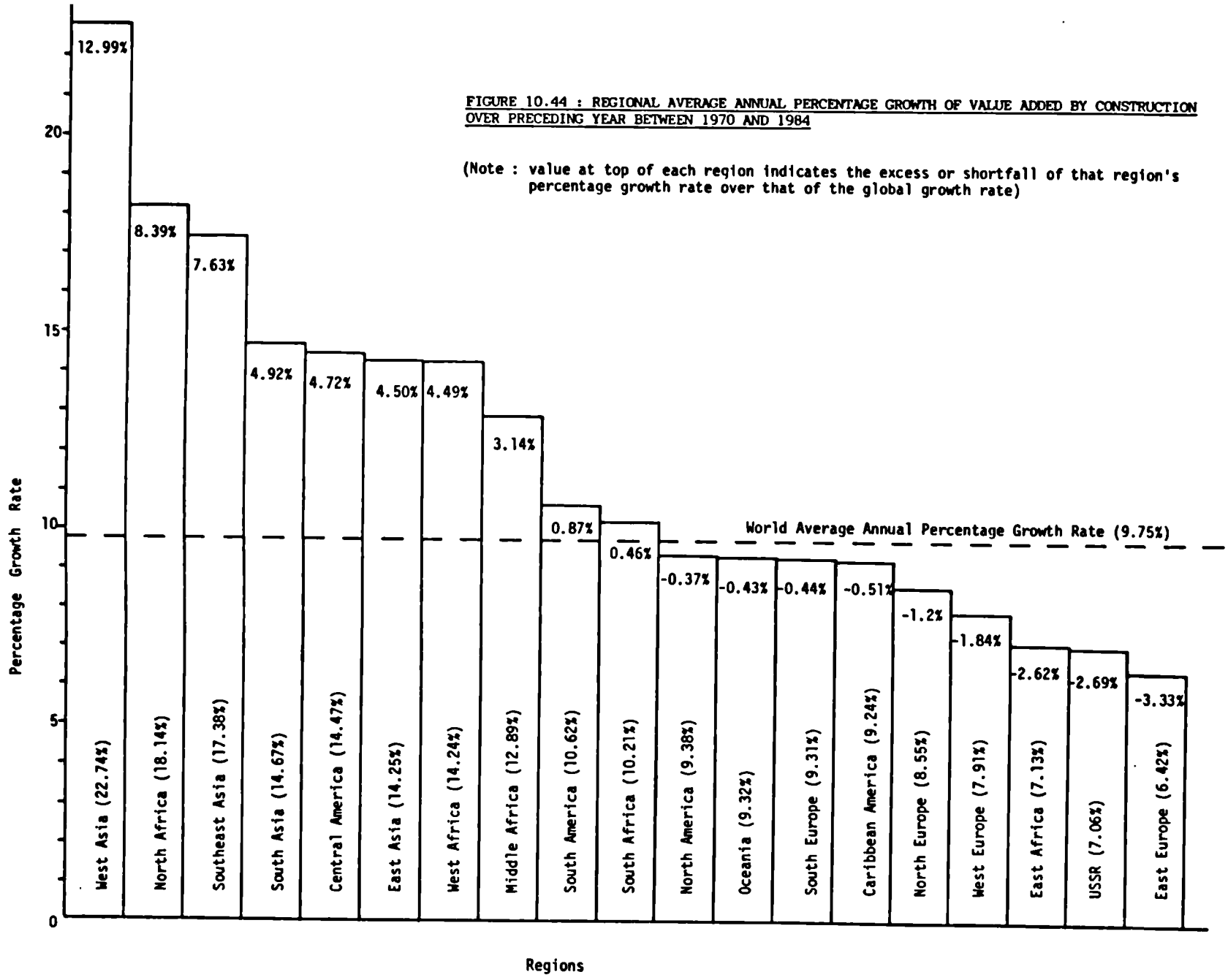



FIGURE 10.43 : AVERAGE ANNUAL PERCENTAGE GROWTH OF VALUE ADDED BY CONSTRUCTION OVER PRECEDING YEAR BETWEEN 1970 AND 1984 FOR NINETEEN GLOBAL REGIONS

FIGURE 10.44 : REGIONAL AVERAGE ANNUAL PERCENTAGE GROWTH OF VALUE ADDED BY CONSTRUCTION OVER PRECEDING YEAR BETWEEN 1970 AND 1984

(Note : value at top of each region indicates the excess or shortfall of that region's percentage growth rate over that of the global growth rate)



global construction volume in its entirety, these criteria do not reflect the contributions made by each region towards the global volume increase over a specific time period. Since the world is made up of a sum of all the regions, it would therefore be of interest to proceed along these lines using the analogous technique of shift-share analysis adopted by some regional and urban economists.

Between 1970 and 1984, in current market prices, the world VA in construction has grown by approximately US$518275.01m. This increase can be attributed to the respective growth in each of the nineteen regions over the same time period. In a similar vein, the increase in construction volume between 1970 and 1984 for each of the nineteen regions can be calculated. By dividing each regional growth in volume by the global increase in volume, the percentage contribution to the increase of world VA in construction by each region can be obtained. The computed results for all the nineteen regions are summarised in Figure 10.45. If the increase in construction volume in a particular region contributes a larger percentage share to the overall growth of the world construction volume over a time period, then that region can be said to offer a better market proposition for a global corporation. The percentage contributions to the increase of world construction volume mirror the surplus marketing opportunities attributed to one region relative to another.

From Figure 10.45, it can be seen that North America provides the largest contribution to the increase of world construction volume between 1970 and 1984 (at 25.59%). This contrasts sharply with the region of Middle Africa which has the smallest contribution at 0.16%. Read together, both Figure 10.43 and Figure 10.45 yield some very interesting results. For example, while the growth rate of North America in Figure 10.43 is only 9.38% (which is below the world average annual percentage growth rate), its contribution to the increase of global construction volume over the same time period in Figure 10.45 has been significant at 25.59%. On the other hand, while West Asia has the highest growth rate (22.74%) in Figure 10.43, its contribution to the increase of global construction volume is only 5.66% in Figure 10.45.

### 10.13.2. A GLOBAL SUMMARY OF REGIONAL CONSTRUCTION

The task remains to demonstrate the proportionality impact of each region's percentage share of the global construction volume. This has already been shown in Figure 10.42. The visual effects postulated, as a result, clearly point to the vast difference between regions at both extreme ends of the continuum. A distinctive contrast can be made between the North American region having the largest global percentage share, and of Middle Africa having the smallest global percentage share.

The overall analysis at regional level has also highlighted a further phenomenon. Naturally, a large market in construction VA terms will logically yield a correspondingly high percentage share of the world construction volume for that market. However, as the analysis carried out here has revealed, this may not

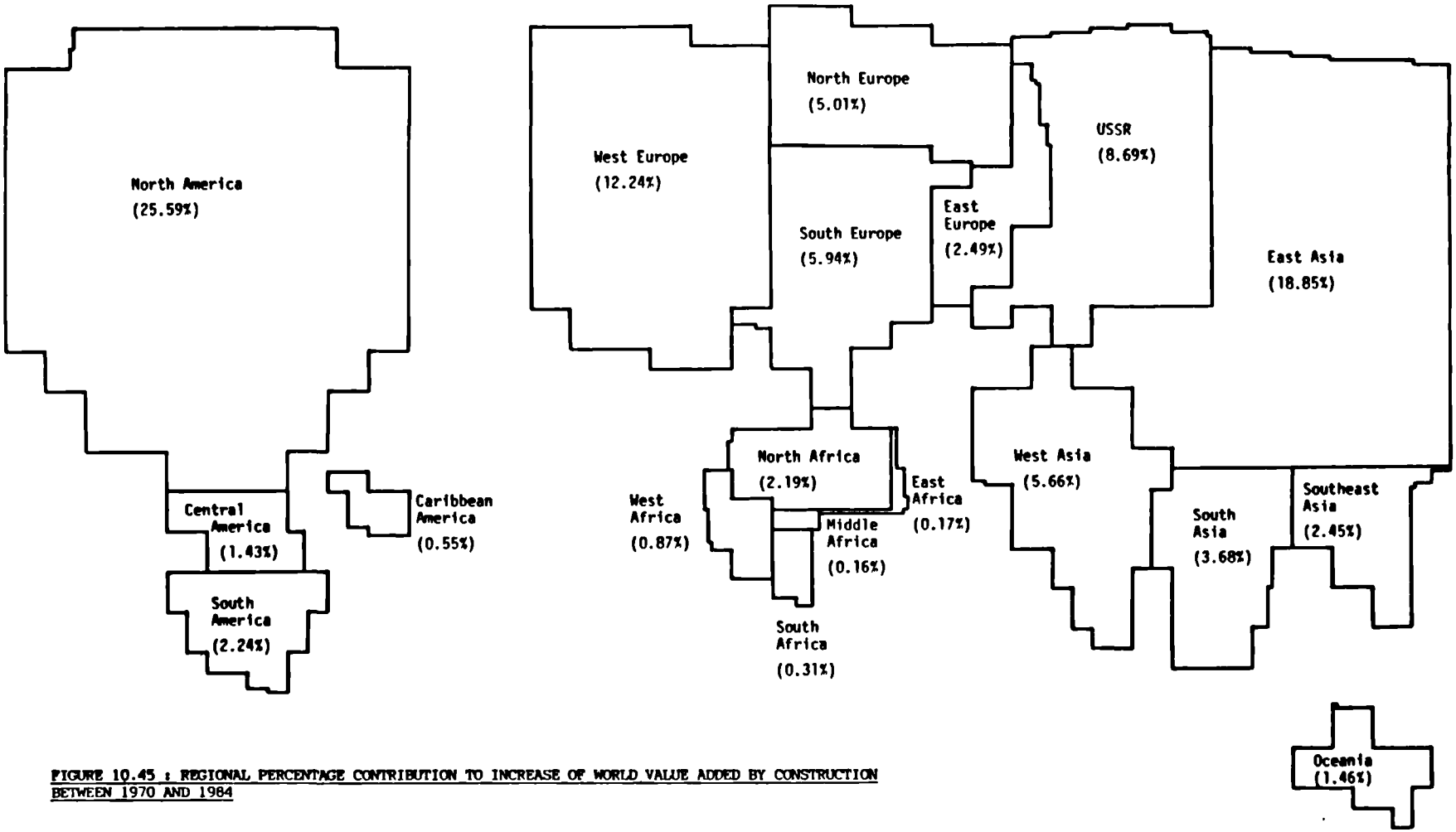



FIGURE 10.45 : REGIONAL PERCENTAGE CONTRIBUTION TO INCREASE OF WORLD VALUE ADDED BY CONSTRUCTION BETWEEN 1970 AND 1984

Note : 1. Let entire enclosed area of map be 100 (i.e. world value added growth between 1970 and 1984).
2. Let area of each region represents its percentage share in the above; i.e.

$$\text{Percentage share} = \frac{\Delta R_x}{\Delta \sum_a^x R} \times 100\% = \frac{\text{(Regional value in 1984 - Regional value in 1970)}}{\text{(Global value in 1984 - Global value in 1970 )}} \times 100\%$$

necessarily generate yet another correspondingly high growth rate. Table 10.27 summarises this clearly. Apart from the region of North Africa which has the highest percentage contribution to the increase of world VA by construction, the highest average annual growth rate and the largest percentage share of global construction volume in Africa, all the other main regional classifications have projected different tendencies. Hence, in the main regional classification of Asia and the Pacific, while East Asia has both the largest percentage contribution to the increase of world VA by construction as well as the largest percentage share of global construction volume, it is West Asia which ultimately provides the highest average growth rate over preceding year.

10.13.3. A COUNTRY-BY-COUNTRY APPROACH

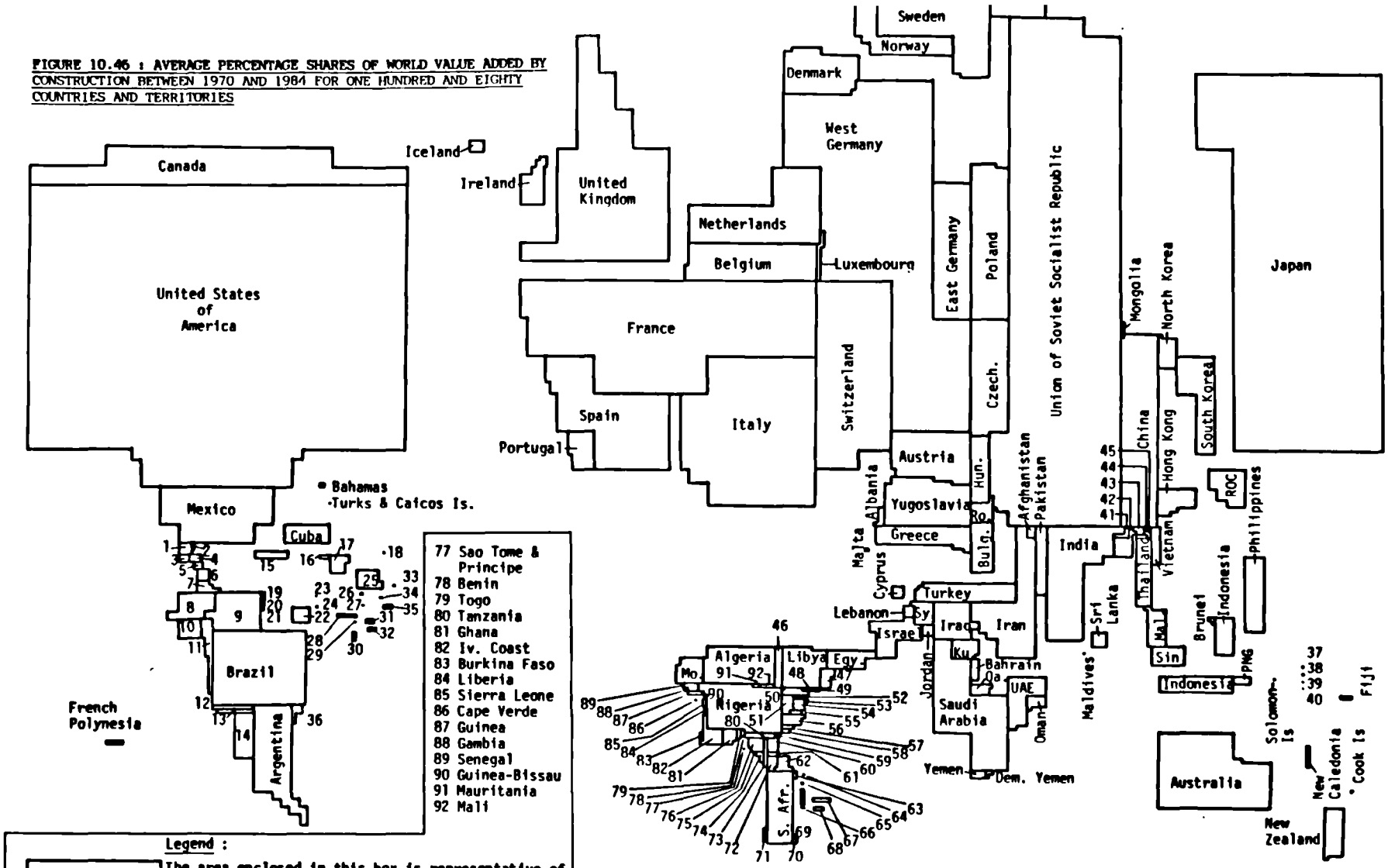
Turning now to disaggregation at country levels, Figure 10.46 shows the average percentage shares of world VA by construction for one hundred and eighty countries between 1970 and 1984. The disparities in size between countries in the northern hemisphere and those in the South are similarly apparent. The domination by Japan and countries in both the North American and European continents is clearly discernible. This again contrasts sharply with the corresponding growth trends in

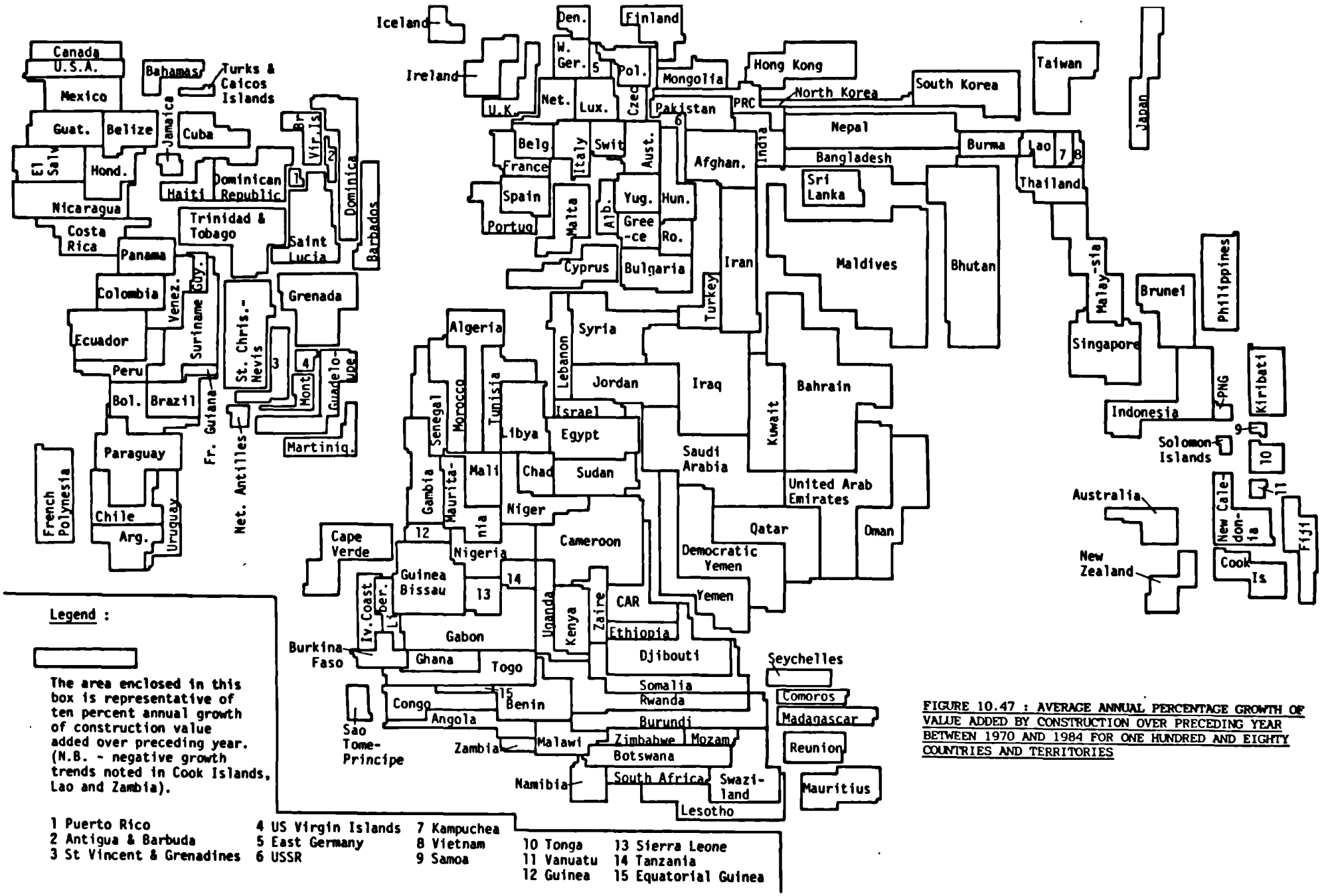
| Main regional classifications / Levels of disaggregation | Europe & USSR | Asia & Pacific | America | Africa |
|---|---|---|---|---|
| Percentage shares of world construction volume. (See Figure 10.42). | West Europe | East Asia | North America | North Africa |
| Average annual growth rates over preceding year. (See Figures 10.43 and 10.44). | South Europe | West Asia | Central America | North Africa |
| Percentage contribution to increase of world VA by construction. (See Figure 10.45). | West Europe | East Asia | North America | North Africa |

TABLE 10.27. A SUMMARY OF THE LEADING REGIONS IN EACH MAIN REGIONAL CLASSIFICATION ACCORDING TO LEVELS OF DISAGGREGATION

Figure 10.47 which shows the average annual percentage growth of construction VA over preceding year for the same number of countries over a similar time period. Under comparison, the dominant geographical layout depicted is similarly reversed

FIGURE 10.46 : AVERAGE PERCENTAGE SHARES OF WORLD VALUE ADDED BY CONSTRUCTION BETWEEN 1970 AND 1984 FOR ONE HUNDRED AND EIGHTY COUNTRIES AND TERRITORIES






**Legend :**

The area enclosed in this box is representative of ten percent annual growth of construction value added over preceding year. (N.B. - negative growth trends noted in Cook Islands, Lao and Zambia).

1 Puerto Rico
2 Antigua & Barbuda
3 St Vincent & Grenadines
4 US Virgin Islands
5 East Germany
6 USSR
7 Kampuchea
8 Vietnam
9 Samoa
10 Tonga
11 Vanuatu
12 Guinea
13 Sierra Leone
14 Tanzania
15 Equatorial Guinea

FIGURE 10.47 : AVERAGE ANNUAL PERCENTAGE GROWTH OF VALUE ADDED BY CONSTRUCTION OVER PRECEDING YEAR BETWEEN 1970 AND 1984 FOR ONE HUNDRED AND EIGHTY COUNTRIES AND TERRITORIES

with a major shift in coverage towards the South. In Figure 10.47, countries in Africa, West Asia and, to a certain extent, Central and Caribbean America, now occupy positions of greater prominence than those elsewhere in the world. These can be seen in greater details from Table 10.28 which categorises the average annual percentage growth rates of each country into six ranges. As can be seen in Table 10.28, although there are more developing than developed countries, there appears to be many developing countries with growth rates which are comparable with those of the developed countries. Apart from three instances (namely Cook Islands, Lao and Zambia) which recorded negative growth trends, all the countries considered here have construction volume which grew positively over the fifteen years' period. Again, read together, Figures 10.46 and 10.47 appear to suggest that although most developing countries in the southern hemisphere have small construction volumes in relation to those of the developed countries in the North, the former have consistently grew at a faster rate than the latter. The evidence in both Figures 10.46 and 10.47 points to the relatively slower rates of growth in construction volumes of most developed countries despite or perhaps because of their larger construction volumes in absolute terms. The overwhelming increases in growth rates of most developing countries in the 1970s, as both Kidron and Segal (1981) have noted, could be attributed to any one of two factors. Firstly, the discovery of oil and the subsequent surplus petrodollars have generated an extraordinary era of generous construction spendings, particularly in West Asia and North Africa. Secondly, investments in construction have also been instituted by other non oil-producing developing countries with strategic concentration in international manufacturing and exports following their abilities, firstly, to provide a controlled, skilled and comparatively low-cost labour force and, secondly, to attract foreign direct investments mainly through concessionary rates of taxation and other incentives. The Newly Industrialising Countries (NICs) constitute the cream of this second group of developing countries.

## 10.14. SUMMARY

For the purpose of this analysis, an eight-step procedure was devised to examine the broad order of magnitude involved with a study of the global construction industry. Different levels of disaggregation were also adopted for this study : at the global level, four types of economies, nineteen geographical regions, six political groupings, in Asean, in the EC and for 180 countries and territories. The variables used for measurements include : VA by construction, annual growth rates, percentage shares of the world construction volume, regressional trends (both absolute and relative) and regressional closeness of fit. A global analysis based on absolute and relative measures was carried out using graphically distorted world maps disaggregated at both the regional and country levels. The North-South divide in the global construction industry was identified.

| Less than 0% | 0 to 4.99% | 5 to 9.99% | | 10 to 14.99% | | 15 to 19.99% | Greater than 20% | |
|---|---|---|---|---|---|---|---|---|
| Cooks Islands (-12.86%) | Antigua & Barbuda (1.98%) | Albania (5.30%) | Namibia (7.46%) | Angola (12.12%) | Malta (13.55%) | Benin (17.18%) | Afghanistan (22.56%) | Rwanda (26.01%) |
| Lao (-6.00%) | Bermuda (2.62%) | Australia (9.48%) | Netherlands (9.31%) | Argentina (13.04%) | Morocco (14.79%) | Botswana (17.12%) | Algeria (21.73%) | Saudi Arabia (43.75%) |
| Zambia (-2.73%) | E. Germany (2.97%) | Bahamas (7.56%) | New Zealand (9.37%) | Austria (10.98%) | New Caledonia (14.89%) | Brunei (18.15%) | Bahrain (71.24%) | Singapore (23.20%) |
| | Eq. Guinea (2.26%) | Belgium (7.87%) | North Korea (6.29%) | Barbados (11.36%) | Pakistan (13.12%) | Congo (15.31%) | Bangladesh (20.54%) | South Korea (23.21%) |
| | French Guiana (2.23%) | Br. Virgin Is. (7.37%) | Norway (9.18%) | Belize (11.54%) | Panama (11.30%) | Cyprus (15.91%) | Bhutan (55.66%) | Suriname (22.82%) |
| | Guinea (4.34%) | Burkina Faso (6.88%) | Poland (8.41%) | Bolivia (12.37%) | Peru (10.40%) | Dominica (17.90%) | Burundi (20.90%) | Swaziland (20.71%) |
| | Guyana (3.47%) | Burma (8.46%) | Romania (6.24%) | Brazil (11.72%) | Portugal (10.63%) | Dom. Republic (18.10%) | Cameroon (42.10%) | Syria (28.00%) |
| | Jamaica (2.60%) | Canada (8.93%) | Seychelles (6.33%) | Bulgaria (14.68%) | Reunion (11.74%) | Fr. Polynesia (18.41%) | Cape Verde (20.59%) | Trin. & Tobago (27.13%) |
| | Kampuchea (3.44%) | Chad (8.25%) | Sierra Leone (6.51%) | Cen. Afr. Rep. (13.61%) | Saint Lucia (14.01%) | Gambia (17.63%) | Dem. Yemen (38.45%) | U.A.E. (44.70%) |
| | Monserrat (4.64%) | Comoros (6.81%) | St. Vincent (9.10%) | Chile (12.34%) | Senegal (13.43%) | Guadeloupe (16.71%) | Djibouti (27.07%) | Yemen (27.69%) |
| | Net. Antilles (2.23%) | Czechoslovakia (6.63%) | Sweden (6.76%) | China (10.78%) | South Africa (10.11%) | Lesotho (18.14%) | Ecuador (20.63%) | |
| | Papua New Guinea (1.48%) | Denmark (5.23%) | Switzerland (6.97%) | Colombia (13.35%) | Spain (10.19%) | Libya (18.03%) | Egypt (20.65%) | |
| | Puerto Rico (1.19%) | Ethiopia (7.01%) | Tanzania (5.46%) | Costa Rica (14.30%) | Sri Lanka (11.49%) | Mauritania (15.74%) | Gabon (31.63%) | |
| | Samoa (1.17%) | France (8.48%) | Tonga (5.82%) | Cuba (10.81%) | Thailand (13.67%) | Mauritius (15.38%) | Grenada (23.51%) | |
| | Sao Tome Principe (4.31%) | Ghana (8.59%) | Turkey (7.56%) | El Salvador (13.85%) | Tunisia (14.79%) | Mexico (15.08%) | Guinea-Bissau (25.83%) | |
| | Solomon Islands (1.22%) | Greece (8.20%) | United Kingdom (9.60%) | Fiji (13.43%) | Uganda (10.91%) | Niger (15.98%) | Hong Kong (20.99%) | |
| | Turks & Caicos Is. (1.62%) | Greenland (7.57%) | United States (9.51%) | Finland (12.10%) | Uruguay (10.63%) | Nigeria (16.77%) | Indonesia (24.48%) | |
| | US Virgin Islands (2.24%) | Haiti (7.55%) | USSR (7.06%) | Guatemala (14.51%) | | Philippines (18.33%) | Iran (28.44%) | |
| | Vanuatu (1.54%) | Iceland (5.34%) | Venezuela (9.62%) | Honduras (12.76%) | | Somalia (18.84%) | Iraq (48.96%) | |
| | Vietnam (1.97%) | India (9.29%) | W. Germany (8.04%) | Hungary (12.72%) | | St. Chris-Nevis (19.21%) | Jordan (23.03%) | |
| | | Israel (6.73%) | Yugoslavia (9.04%) | Ireland (11.49%) | | Sudan (16.30%) | Kuwait (22.13%) | |
| | | Italy (9.51%) | Zaire (7.51%) | Ivory Coast (11.74%) | | Taiwan (19.54%) | Malaysia (23.31%) | |
| | | Liberia (6.35%) | Zimbabwe (7.93%) | Japan (14.59%) | | Togo (18.66%) | Maldives (83.37%) | |
| | | Luxembourg (9.77%) | | Kenya (13.60%) | | | Nepal (34.05%) | |
| | | Madagascar (9.67%) | | Kiribati (13.34%) | | | Nicaragua (26.24%) | |
| | | Martinique (9.37%) | | Lebanon (11.01%) | | | Oman (30.15%) | |
| | | Mongolia (9.91%) | | Malawi (10.66%) | | | Paraguay (26.31%) | |
| | | Mozambique (5.12%) | | Mali (11.04%) | | | Qatar (28.57%) | |

FOOTNOTES

1 These sources are :
   a. "A.C.P. : Statistical Yearbook 1972-1978", Statistical Office of the European Communities, June 1986.
   b. "African Statistical Yearbook : Part 1 to 4", Economic Commission for Africa, United Nations, 1985.
   c. "African Statistical Yearbook 1983 : Part 1 to 4", Economic Commission for Africa, United Nations, 1986.
   d. "COMECON Data 1985", The Vienna Institute for Comparative Economic Studies (Ed.), Macmillan Press Ltd., London, 1986.
   e. "Construction Statistics Yearbook" and "Yearbook of Construction Statistics", United Nations, various issues before 1985.
   f. "Construction Statistics", Studies in Methods Series F No. 13, Department of Economic and Social Affairs, Statistical Office of the United Nations, United Nations, 1965. (This has been superseded by "International Recommendations for Construction Statistics", (ST/STAT/SER.M/47), United Nations Publication Sales No. E68 XVII 11.)
   g. "European Marketing Data and Statistics", Euromonitor Publications Ltd., London, editions from various years.
   h. "Handbook on International Trade and Development Statistics", United Nations Conference on Trade and Development (UNCTD), United Nations, 1985.
   i. "International Financial Statistics Supplement on Exchange Rates", Supplement Series No. 9, International Monetary Fund, 1985.
   j. "International Marketing Data and Statistics", Euromonitor Publications Ltd., London, editions from various years.
   k. "Key Indicators of Developing Member Countries of ADB", Vol. X No. 1, Economic Office, Asian Development Bank, April 1979.
   l. "Key Indicators of Developing Member Countries of ADB", Vol. XVIII, Economic Office, Asian Development Bank, July 1987.
   m. "National Accounts : Volume I - Main Aggregates (1960-1985)", Department of Economics and Statistics, Organisation for Economic Co-operation and Development, 1987.
   n. "National Accounts : Volume II - Detailed Tables (1973-1985)", Department of Economics and Statistics, Organisation for Economic Co-operation and Development, 1987.
   o. "National Accounts Statistics", United Nations, various editions after 1982.
   p. "Standard International Trade Classification Revision 3", Statistical Papers Series M No. 34 Rev. 3, Department of International Economic and Social Affairs, United Nations, 1986.
   q. "Statistical Yearbook for Asia and the Pacific", Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations, 1985.
   r. "Statistical Yearbook for Latin America", Economic Commission for Latin America, United Nations, 1978 and 1984 editions.
   s. "Statistical Abstract of Latin America", Volume 25, J. W. Wilkie (Ed.), University of California, Los Angeles, 1987.
   t. "Statistical Yearbook of Member States of the Council for Mutual Economic Assistance (CMEA)", Secretariat of CMEA, "Statiska" Moscow (English Language Edition), IPC Industrial Press Ltd., London, 1979.
   u. "Survey of Economic and Social Conditions in Africa", Economic Commission for Africa, United Nations, various issues from 1981-1986.
   v. "The Economies of the Arabian Gulf : A Statistical Sourcebook", Atif Kubursi, Croom Helm Ltd., 1984.
   w. "World Bank Atlas", World Bank, editions from various years.
   x. "World Tables : Volume I - Economic Data", 3rd Edition, World Bank / IBRD, 1983.
   y. "World Tables", 2nd Edition, World Bank / IBRD, 1980.
   z. "Yearbook of National Accounts Statistics", United Nations, various editions before 1982.

2 UNCTD, "Handbook of International Trade and Development Statistics (1985 Supplement)", United Nations Conference on Trade and Development, United Nations, 1985. (See, in particular, "Foreword to the Handbook". As qualified

therein, the designations "developed" and "developing" are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process.)

3 See, for examples, the followings :
   a. Nicco-Annan J., "Multinational Construction Companies in Developing Countries : Theory and Practice", Unpublished M.Sc.(Arch.) dissertation, University College London, September 1987.
   b. Seymour H., "International Investment in the construction industry", Unpublished Ph.D. thesis, Department of Economics, University of Reading, October 1986.
   c. Neo R. B., "International Construction Contracting. A critical investigation into certain aspects of financing, capital planning and cash flow effects", Unpublished Ph.D. thesis, Heriot-Watt University, 1975.
   d. "Engineering News Record", McGraw-Hill, various issues.

4 "Standard Country or Area Codes for Statistical Use", Statistical Papers Series M No. 49 Rev. 2, Department of International Economic and Social Affairs, United Nations, 1982.

5 See, for examples, the following reports :
   a. "Foreign Access : The construction door swings open a little", Far Eastern Economic Review, 16 June 1988, p. 67.
   b. "Japan demands more UK work", Construction News, 2 June 1988, p. 1.
   c. "US set to act over Japanese construction barriers", Financial Times, 21 November 1989, p. 7.
   d. Dunne N., "Hills hits at Japanese construction barriers", Financial Times, 23 November 1989, p. 7.
   e. Thomson R., "Japanese contractors fear US sanctions", Financial Times, 24 November 1989, p. 7.

6 As reported in "ASEAN-EC Ministers meet", Singapore Bulletin, June 1988, p. 7.

7 Some evidence of the Singapore Government harnessing the opportunities created by the worldwide recession of the early 1980s for the construction of Singapore's Mass Rapid Transit System can be found in :
   a. Davis K., "Take cover with Singapore's $5bn ticket to ride", Financial Times, 10 March 1983.
   b. Sherwell C., "The fight for Singapore's Underground", Financial Times, 25 January 1984.
   c. Dhaliwal R., "Good timing may save $500mil for MRTC", Straits Times Weekly Overseas Edition, 8 April 1989, p. 8.

8 The Maldives, although listed at the top of the ranking in the earlier computations carried out elsewhere, has not been included here because of its inconsistency in correlation coefficients arising from some slight data deficiencies.

9 Some extent of the Japanese practices may be found in :
   a. Bennett J., "Japanese Construction", Chartered Quantity Surveyor, September 1987, pp. 27-28.
   b. Bennett J., Flanagan R. and Norman G., "Japanese Construction Industry", Capital and Counties Report, Centre for Strategic Studies in Construction, University of Reading, May 1987.
   c. Hasegawa F. and Shimizu Group FS, "Built by Japan - The Competitive Strategies of the Japanese Construction Industry", Wiley, 1988.

10 "Livingstone's classification of developing and other countries", cited in Kinsey J., "Marketing in Developing Countries", Macmillan Education Ltd., 1988, pp. 353-354 (Appendix II).

11 An appreciation of the current state-of-the-art in world mapping can be found in "New perspective on the world", National Geographic reprint in The Mirror, Vol.

25 No. 10, 15 May 1989, pp. 16-17.

REFERENCES


1 Al-Mufti M. A. and Cochrane S. R., "The construction scene in Africa : trends and realities", Proceedings of the Institution of Civil Engineers, London, Part I Volume 80, June 1986, pp. 685-715.

2 Brandt Commission, "The Brandt Report : North South. A Programme for survival", Pan Books, London, 1980.

3 Cochrane S. R. and Wali K., "Construction expenditure and economic development", Civil Engineering (London), September 1986, pp. 9-14.

4 Daniel P., "Stay, compete in Asia-Pacific : PM", Straits Times Weekly Overseas Edition, 10 February 1990, pp. 1-2.

5 Demacoupolos A. and Moavenzadeh F., "International Construction Financing", TDP Report 85-3, Technology and Development Program, MIT, June 1985.

6 Edmonds G. A. and Miles D. W. J., "Foundations for change - Aspects of the construction industry in developing countries", Intermediate Technology Publications, 1984.

7 Gilligan C. and Hird M., "International Marketing : Strategy and Management", Croom Helm, 1986.

8 Hague D. C., "Managing in the macroeconomic environment", in Pickering J. F. and Cockerill T. A. J. (Eds.), "The economic management of the firm", Philip Allan Publishers, 1984, pp. 252-276.

9 Keegan W. J., "Multinational Marketing Management", 3rd Edition, Prentice-Hall, 1984.

10 Kidron M. and Segal R., "The State of the World Atlas", Heinemann (London), 1981.

11 Moavenzadeh F., "Construction and Socioeconomic Growth", Unibeam, Vol. XIII, 1984, pp. 19-28.

12 Oliver G., "Marketing Today", 2nd Edition, Prentice-Hall International, 1986.

13 Seymour H., "The Multinational Construction Industry", Croom Helm, 1987.

14 Stone P. A., "Building Economy", Oxford : Pergamon, 1976.

15 Terpstra V., "The Evolution of International Marketing", International Marketing Review, Summer 1987, pp. 47-59.

16 Turin D. A., "Construction and Development : A framework for research and action", A paper prepared for the International Bank for Reconstruction and Development, University College Environmental Research Group, London, May 1972.

17 Turin D. A., "Construction and Development", Building Economics Research Unit, University College Environmental Research Group, London, September 1973.

18 UNIDO, "Industry and Development Global Report", First in Series, United Nations Industrial Development Organisation, 1985.

19 Wells J., "The Role of Construction in Economic Growth and Development", Habitat International, Vol. 9 No. 1, 1985, pp. 55-70.

CHAPTER ELEVEN

# THE INFLUENCE OF MARKETING AND CONSTRUCTION ON ECONOMIC DEVELOPMENT

## 11.1. WHAT IS ECONOMIC DEVELOPMENT ?

While economics is fundamentally concerned with the study of resource allocation, development can be looked at as an indication of a country's progress over time following its achievement of some degree of optimality in its resource allocation programme. The advent of economic growth is also inextricably linked with social progress which measures the well-being of the society under consideration. Because development refers implicitly to the state of socio-economic progress which is desirable, there is an intrinsic variation here since different people will have different views and perceptions over what is considered desirable. Kinsey (1988), for example, has not been hesitant in acknowledging the difficult task which lies in defining or measuring economic development. Kinsey (1988) notes that the same difficulty has spurred others to adopt numerous approaches in fine tuning the meaning of economic development. These range from economic growth to modernisation, to distributive justice, and to socio-economic transformation where the quality of growth and social changes are all essential considerations. The diversity here similarly creates immense problems for the measurement of economic development. This has been an issue which Kaynak and Hudanah (1987) have sought to overcome using indicators instead of direct measures of economic growth. In the process, these encompassed indicators such as GNP per capita, growth rate of industrial production, literacy rate, per capita automobile ownership, etc., among others.

Baker's (1979) study of the economic growth theories yields a similar conclusion in that there is no single agreed theory of growth. Virtually little, if any, consensus exists as to what growth means. Consequently, there is a tendency to adopt GNP or GNP per capita as a crude measure based on the fundamental argument that there will be more to go around if a country's national income is expanding. Under these circumstances, the welfare of an individual will apparently improve as a natural course of progression. Nonetheless, a distinction needs to be made between the standard of living or quality of life and an increase in the quantity of services or goods available for consumption. Baker (1979) has argued that these are not synonymous terms and must therefore be acknowledged as such accordingly.

## 11.2. MARKETING'S ROLE IN ECONOMIC DEVELOPMENT

Dawson's (1979) review of marketing within the context of the national economy suggests that the difficulties one is likely to face in measuring marketing systems tend to limit the studies of the contributions marketing has in economic development. Unlike other sectors of the economy, marketing constitutes an activity, not an industry, which manifests itself mainly in the form of services. Dawson (1979) went on to suggest that the importance of marketing in an economy can, nevertheless, be estimated by the role commerce and transport have in a country's

GDP.

Most of the authorities on this subject have convincingly argued that the role of marketing has been neglected altogether in the publications about economic development and planning. As far back as the 1950s, Drucker (1958) had already maintained that the potentials of marketing in optimising, or at least satisficing, assets have been relegated to become one of the most backward part of the economic system. This contention was supported by Mentzer and Samli (1981) who observed that marketers do not pay attention to the importance marketing has in economic development. This issue was taken up also by Rostow (1965) who wrote that marketing, which predominately manifests itself in distribution, has largely been ignored by both the development economists and policy-makers. In promulgating the concept of a national market and its economic growth implications, Rostow (1965) has identified a crucial need for urbanites to introduce the impetus for modernisation into the rural regions. To do so, Rostow (1965) argues, there is a corresponding role for marketing which, in physical terms, can be derived from distribution channels. Yet it appears that the due consideration in this area has been far from satisfactory.

Baker (1979), for instance, notes that the poor infrastructural facilities such as roads, postal and telephone services, private networks in the transportation media field, etc., are among the characteristic features of developing countries. These are, however, the essential elements which pave the way for economic growth and improved standards of living, and which have led Baker (1979) to the conclusion that marketing does indeed has a vital role to play in harnessing the economic growth process.

The agricultural sector has traditionally provided a useful starting point where in the process of moving perishable goods from producers to consumers, the critical time factor inevitably elevates marketing efficiency to an even more important function. This is where execution with the minimum use of resources constitutes a major challenge. As Vincent (1967) has recognised, agricultural marketing entails the movements of foods from producers to consumers because economic development is basically concerned with the exchange process which takes place between the consumer and the producer. Nonetheless, the same allegation that the distributive system or marketing chain has been neglected in the discussions and formulation of economic development plans appears to has gained the acquiescence of Vincent (1967). In an attempt to explain why such neglect has been phenomenal, Dawson (1979) suggests that the reason may well have been attributed to the lack of a theoretical understanding of the marketing position in the various developmental processes. Kaynak and Hudanah (1987), on the other hand, believe that this may has consequently led others to assume that the marketing system of a country is both passive and adaptive to the economic and production status of that country. This constitutes an assumption which Kaynak and Hudanah (1987) refuse to accept on the

grounds that marketing is, on the contrary, dynamic and can stimulate economic development. This appears to relate well with Sherbini's (1965) contention which suggests that the failure to consider marketing in the underdeveloped countries is a cause of deterrent for their industrialisation. Investments in capital formation and manufacturing facilities are simply not enough. In concluding, Sherbini (1965) has noted that the lack of attention given to the consideration of some of these marketing implications may have created serious flaws in the planning and implementation of new industrial projects.

Kinsey's (1988) study of the inroads made by marketing into developing countries suggests a similar phenomenon tendered above by Sherbini (1965). Kinsey (1988) has argued that in most developing countries, the cause of failure in realising national plans can be attributed to the oversights made in relishing priorities given to production, capital formation and investment without positioning the role of marketing in its proper perspective. This contention can be linked back to Drucker's (1958) influential paper which first seriously jolted both the economist and the marketer into acknowledging that there is indeed an inseparable link between marketing and economic development. Drucker (1958) has driven home the message that while the "glamorous" fields such as manufacturing and construction have been highlighted consistently in underdeveloped countries, marketing has, at best, remained neglected. The significance attached to the contributions construction has in economic development had, as a matter of fact, been dealt with on many occasions by others. In their study of the American national economy, Colean and Newcomb (1952) have revealed that the dollar volume of new construction works during the 1920s has increased about two times faster than the GNP. Unlike marketing, this observation has provided evidence of the immense attention construction receives in the literature and national plans.

Without considering the social responsibility of marketing for the moment, Dawson (1979) believes that marketing can create demand which may consequently lead to the maintenance of a minimum standard of living. Further developments along these lines can provide for situations where high mass consumption becomes a reality made possible by the participation of multinational corporations. This is, in fact, an avenue which Kinsey (1988) has advocated to be the major method for introducing marketing into developing countries. In their expositions of marketing and economic development, Kaynak and Hudanah (1987) have proposed two schools of thought which seek to define the contributions marketing has on economic development. In its most elemental form, the Determinist's school of thought compares the environment for market activity with the complexity, functions and efficiency of the market system in different countries. The Activist's school of thought, on the other hand, examines the functions performed by the various institutions within the marketing channel. These, in essence, try to distinguish, firstly, between the development of the various market systems in different

countries and, secondly, relate them to some established measures of economic development.

Although Baker (1979) had expressed some uncertainties as to whether the markets first stimulate development or vice versa, there has nonetheless been considerable assertion that the physical distribution systems have tended to be neglected on many occasions. This creates, in the process, much ineffectiveness. In an examination of both the transport and construction sectors within the framework of economic development, Candemir's (1982) empirical evidence concludes that the interfaces between these two sectors have remained relatively weak during the early stages of their development. However, as the development process progresses, the interaction becomes stronger. The implication seems to show that as economic development advances, the demand for transport or physical distribution systems also grows in tandem with the expansion of the construction sector. In assuming that transport is a concomitant rather than a precondition of development, Candemir (1982) appears to offer some clarifications for the relationship between marketing and economic development. Yet as Kinsey (1988) has observed, although marketing has a fundamental role to play in the process of economic development, the relationship is nonetheless very complex. The complexity, however, depends on whether the role of marketing has been propagated actively or allowed to evolve passively or a combination of both. In its role as a stimulus, marketing can therefore lead economic development. Otherwise, it can lag behind as a response to economic growth. Kinsey (1988) went on to suggest that in yet other situations, marketing can lag behind economic development until a certain plateau is reached whereupon the role is then reversed with marketing leading the process of economic development.

A search through the existing literature reflects a relatively poor reception given to exploring in depth the possible influence marketing has on economic development. This impression relates well with the findings of Kaynak and Hudanah (1987) who, in observing that the subject of marketing in economic development has generated little interest among marketing scholars, noted that the work undertaken thus far has tended to be descriptive and, at best, normative. Hence, an analytical study of the interface between marketing and economic development alone qualifies as a comparatively new academic subject without even considering the tripartite relationship which exists between marketing, construction and economic development.

## 11.3. BEYOND RECOGNITION

Numerous attempts have been made elsewhere to explain why the role of marketing has not been exhorted consciously in economic development. Among others, Godfrey (1972) suggests that because all the functions of marketing have been carried out almost instinctively, the influence of marketing under these circumstances has therefore not attracted much interest. While Anderson (1970) had taken the view that marketing may has been regarded as a passive, self-adjusting mechanism within the

economic system, Kracmar (1971) went a step further to suggest that this may have caused marketing to evolve into a self-generating process. Kinsey (1982), likewise, maintains that marketing is often regarded as a passive and accommodating element which responds to the development process. Nevertheless, in the light of the frequently unfavourable economic climate, Kinsey (1988) believes many countries are forced to reappraise their positions and recognise the relevance and beneficial inputs of marketing. The passivity notion has similarly led Shutt (1982) to recognise the existence of an unwritten set of marketing ideas held in the mind of the policy-maker. Baker (1979), likewise, not only acknowledges the universality of the marketing concept in all the stages of economic development but also maintains that to ignore its presence is to retard the optimum rate of economic development in a country.

Although unethical socio-political factors may sometimes appear to feature more prominently than marketing per se in the conduct of business, Kinsey (1982) nevertheless does not dispute the inextricable link between marketing and economic development. As Kinsey (1982) has advocated, in the long run,

> "The need for marketing is continually increasing as nations develop, start trading internationally and setting up their own marketing systems (Kinsey, 1982:75)."

As such, even though undesirable socio-political factors may be more rife in the developing than developed countries, Kinsey (1988) refutes it as misleading to suggest that the marketing concept cannot be applied to developing countries. Essentially, marketing already exists in one form or another in any society where exchange takes place. Farmer's (1967) critique of marketing from a social viewpoint has similarly branded the concept to be both immoral and irrelevant at times. Despite this perception, Farmer (1967) nonetheless had concurred that marketing services are required once the basic problems of food, shelter and clothing have been resolved. Along similar lines of thought, Mentzer and Samli (1981) have suggested that

> "the key to economic development is the construction of a production / marketing infrastructure, a combination of systems which comprises the productive, distributive, communicative and persuasive aspects of the economic order (Mentzer and Samli, 1981:92)."

Although different dosages of the marketing concept are applied at different stages of development, it is important to note that marketing and production within the context of economic development are not two independent functions. Rather, in their interdependent role, due consideration must be given to the construction of both manufacturing and marketing infrastructures for economic development.

A need for the revamp of existing practices in the Civil Service has been one area singled out by Kinsey (1988) to reinstate the role of marketing in national economic

planning. All too frequently, most echelons in the government departments are staffed with civil servants with training in politics, economics, law or some other more flamboyant areas in the arts. Kinsey (1988) claims that the lack of marketing training and the inability of government officials to comprehend the role of marketing in economic development have hindered the conscious cultivation of an indigeneous marketing atmosphere in developing countries. Appropriate training in this area would therefore be a prerequisite to broadening their horizons and to creating an awareness of the marketing utility.

## 11.4. MANIFESTATIONS OF MARKETING IN CONSTRUCTION

Without considering, for the moment, the combined influence marketing and construction have on economic development, this section attempts to examine how construction inputs are initiated in the pursuit of marketing objectives at a broader national level.

Mentzer and Samli (1981) have maintained that the complex issues which concerned economic development have evolved over time into two main schools of thought. While the first school of thought suggests that the key to economic development lies in the pervasive establishment of appropriate infrastructure, the second school of thought places emphasis on the basic social needs which follow the unsatisfactory infrastructural developments of the 1960s and 1970s. Nevertheless, the first school of thought is of particular interest here because of its intrinsic belief that economic development cannot progress without developing the marketing systems of production, transportation, storage, communication and transaction - all of which, in one way or another, require physical inputs from the construction industry in order to materialise. Mentzer and Samli (1981) recognise that many economic development programmes have traditionally followed this line of argument but unfortunately have stopped short of the marketing aspects of transportation, storage and communications. Preoccupation with only the production facilities have caused the countries involved to forgo what would otherwise be satisfactory results in economic terms. It would appear that the social disquiet brought about by the absence, inadequacy or failure of the distribution system has given rise to the second school of thought expounded above. Mentzer and Samli (1981), however, reason that both schools of thought are not mutually exclusive and that where necessary, a combined mode may still be the only approach for achieving satisfactory results.

Parkinson (1985) similarly argues that a key factor in physical distribution management is getting the goods to the right place at the right time. While acknowledging that the developed world has an intricate network of communications which help to facilitate this movement, Parkinson (1985) contends that the infrastructure in the less developed countries, which manifests itself in the form of roads, railways, telecommunications and warehousing, is somewhat much weaker and more susceptible to failure. In the dissemination of agricultural products, Vincent (1967) has emphasised the need to maintain an efficient distribution chain if

marketing costs are to be rationalised. Where the marketing channels are poorly developed, Vincent (1967) proposes the institution of a programme of marketing reforms to cover all aspects of transport, storage, sorting, grading, processing, marketing information, credit facilities, marketing facilities and procedures as well as the promotion of marketing entrepreneurship. Nevertheless, Vincent (1967) concludes that marketing should not be looked at simply as the movement of goods. The cultivation of a positive attitude towards the marketing system should remain a highly prioritised function. This similarly constitutes an issue which was raised by Kinsey (1988) who argued that it is wrong to assume that the industrialisation of a country can be brought about by building factories alone. Far from this being true, Kinsey (1988) has stressed the importance of building markets as a prerequisite to industrialisation and the need to establish links between production points and the markets. Construction of these links appears to pose some challenging problems for developing countries following the expansion of domestic and international trade. As Candemir (1982) has maintained, the crux of the problem does not lie in the enlargement of the transport network as such but with the delicate task of balancing a transport mechanism for both the changing domestic economic structure and international transport system. The transportation requirements and problems therefore need to be analysed at the international level as well as the national level. These are inevitably related to the current international trading status of the day. The general contention of most construction observers, as Moavenzadeh (1985a) recognises, is that since the larger infrastructural and civil engineering projects are required during the initial stages of development, the public sector tends to dominate industry demand during the early phases of economic development. Shutt (1982) explains that this is so in the case of construction because fixed capital formation constitutes a major bulk of the future investment for the economy of a country. Notwithstanding the criticisms of nationalists, Kinsey (1988) has nonetheless defended the contributions imperial colonialism may have made in developing the transport and distribution systems within former colonies. Kinsey (1988) has also noted the emphasis placed by the governments on developing distribution infrastructures in Hong Kong, South Korea and Singapore, and that the government's effort in nurturing and improving the marketing environment in Singapore has indeed paid off handsomely. The generous provision of industrial zones and transport networks to facilitate international trade and in satisfying the demanding requirements of incoming multinational manufacturing corporations appear to be a typical approach adopted by the NICs in the Far East. Bunton's (1979) study of the world markets for construction has revealed a tendency for more developing countries, particularly those whose economies have expanded rapidly, to place more of their resources in infrastructural development - more roads, power stations, bigger ports, more efficient railways and telecommunications, etc.

The review above appears to have given rise to three impressions. First and foremost,

the direct influence of construction on economic development has been extolled by many others elsewhere. However, the same cannot be said for marketing within the context of economic development where an examination of their interface appears to has been omitted by both the marketer and the economist until quite recent times. In proceeding a step further, the lack of any studies on the relationship between marketing and construction on economic growth becomes even more excruciatingly obvious. Yet as the numerous authorities on each of these individual subjects have seemed to argue, economic development cannot proceed without first giving due consideration to both marketing and construction. The implementation of national marketing programmes for economic development requires the inputs from construction in the form of supporting physical distribution and other infrastructural facilities. It would therefore appear plausible to suggest that the potential opportunities for construction can be identified through both the existing and projected marketing objectives of a country. There are, in effect, two interactive aspects of construction and marketing in economic development. As examined above, during the early stages of economic development, a country would require construction inputs to support its planned marketing channels. These would manifest themselves in the forms of warehousing for wholesaling purposes, buildings for retail outlets, road networks for distribution, and telecommunications to facilitate transactions between different places. As economic development progresses and trading with other countries intensifies, the need to construct international transport facilities such as air and sea ports, containers' wharves, etc., becomes essential if international marketing objectives are to be attained. In progressing even further, a situation may eventually arise where the operating units within the construction industry of a country begin to market their indigeneous products and services to yet other countries. The influence of marketing on construction, firstly, as a process and, secondly, as an orientation, can be discernible. Their relationships with economic development have been depicted in Figure 11.1 where the forward linkage and backward integration modes serve to straddle construction and marketing to economic development respectively. Although the subtle link between construction and marketing in relation to economic development has not been dealt with explicitly before, the interaction between construction and marketing can, nonetheless, be appreciated via their synergetic relationship shown in Figure 11.1.

In an attempt to relate marketing and economic development for investment decisions, Vincent (1967) has acknowledged the significance of both the forward and backward concepts on the marketing channel formation process. As Dawson (1979) has reiterated in a treatise of marketing factors in economic growth, backward linkages or derived demand occur when an operating unit requires products or services which are first lacking and thereby creates a demand which is subsequently met. The establishment of forward linkages, on the other hand, materialises when an operating unit produces goods and services which provide the impetus for

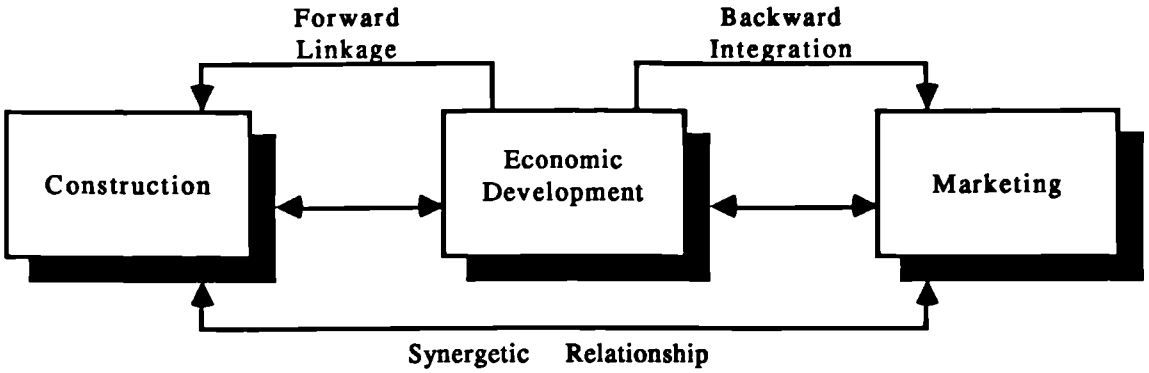



FIGURE 11.1. THE LINK BETWEEN CONSTRUCTION, MARKETING AND ECONOMIC DEVELOPMENT

generating new activities. Forward linkages, therefore, denote the consumption encouraged by the production of intermediate goods. This approach has been criticised by Vincent (1967) who argues that attention should not be confined only to the institutions which provide the linkage effect. Vincent (1967) suggests that somewhere along the marketing chain, any changes in investment policies can also achieve both backward and forward linkages. Moavenzadeh (1985b) notes that there are some indirect contributions from construction to economic growth through forward linkages (which take the forms of physical plants and infrastructure) and backward integration (which derives the demand for basic building materials).

To make economic development a reality in any "growth" country, Drucker (1958) has proposed a marketing system which consists of the following three components :

1. A system of physical distribution (made possible only with the appropriate inputs from construction).
2. A financial system (to facilitate the distribution of goods), and
3. A system for integrating the needs, wants and purchasing power of consumers with the resources and capacities of producers.

## 11.5. SYNTHESISING MARKETING, CONSTRUCTION AND ECONOMIC DEVELOPMENT

Having examined the relationships between construction, marketing and economic development, this section will continue on to investigate the possibility of synchronising categorically their phases of evolution. It seems that the distinctive stages of development may be identifiable for construction, marketing and economic growth although the boundaries which delineate between adjacent stages may be blurred or, as appear to be the usual case, may overlap one another. The establishment of a framework within which the evolutionary development of construction, marketing and economic growth may be traced appears to be plausible. With a knowledge of how these elements phase in spontaneously with one another, the planning task for any one of these elements would become, it would seem, much more routinised. In the process, the identification of opportunities can be structured much more readily and available resources allocated accordingly.

Kaynak and Hudanah (1987), for instance, have distinguished five general levels of marketing development in tandem with different stages in the economic development process. In stage one, the most primitive form of marketing in a subsistence economy manifests itself through the simple mode of bartering. As the economy develops, specialisation and the division of labour herald in the second stage where trading now constitutes the foundation of marketing. Small firms gradually evolve in stage three but the low production levels do not yet merit the setting up of specialised management functions. Subsequently, the economies of large scale production in stage four brought forth different managerial functions to serve different needs. Nonetheless, the emphasis was still placed on production rather than marketing. Stage five denotes the era of modern marketing with a realisation that a high level of economic activities cannot be sustained without a correspondingly high level of marketing inputs.

Having dealt with the five levels of marketing evolution in the economic development process, Kaynak and Hudanah (1987) continued on to search for the most appropriate steps in organising marketing practices which are in harmony with the stages of economic and marketing development in a country. In acknowledging that the organisational structures of firms relating to marketing do indeed develop over time, Kaynak and Hudanah (1987) have similarly recognised five different stages of marketing development within the business world. Small firms typically characterised stage one where the manager of the firm virtually makes all the decisions apart from those involving sophisticated techniques of production. In its contemporary sense, marketing does not exist at all during this phase although the element of selling may, nevertheless, be obvious. In stage two, functional departments were established to provide for the needs of production, personnel, finance, purchasing and selling. A sales department may, at least, reflect some of the earliest efforts in organising marketing activities. This paradigm persists on to stage three until the firms begin to encounter marketing problems. While an awareness can be created of the need to group all marketing activities under the aegis of sales management, the sales manager may, however, retain only a minimal influence on most aspects of production. This leads to stage four where the first sign of a market orientation emerges with the establishment of a marketing department. At a later time, stage five mirrors management realisation of what marketing can do to achieve overall corporate objectives. In essence, marketing has now evolved to become the basic orientation and driving force behind the entire firm.

By performing simple correlation analysis for eight developing countries, Kaynak and Hudanah (1987) have concluded that the firms operating in countries with similar levels of development tend to have similar marketing practices. The use of standardised marketing practices therefore no longer remains a remote possibility. Despite their findings, Kaynak and Hudanah (1987), nonetheless, contend that there is still no affirmatively strong evidence to believe there are two identical marketing

systems in the world. The same observation relates to the marketing practices of different firms in a given country where their responses to the economic environment can vary substantially. Hence, a standard and consistent pattern of marketing response and practices is not expected to emerge at the national level of developing countries. In any case, it is still necessary to examine the evolution of the market structure and its attendant marketing practices at different stages of economic development in order to gain a clearer understanding of the prevailing relationship which exists between marketing and economic development. As in the other areas of socio-economic activities, these do not arise simply by chance but are rather indications of past and accumulated experiences which reflect the particular environment in which they are found.

In the case of construction, a similarly influential phased approach has been offered by Moavenzadeh and Hagopian (1984). This traces the five general stages of development of the construction industry in a developing country. Beginning with the first stage where indigeneous contracting capacity has yet to be developed, the construction of the larger projects has tended to be dominated by foreign firms, a phenomenon which is particularly pervasive in mega civil engineering works. Foreign firms, however, do offer subcontracting opportunities to local firms, as a result of which indigeneous subcontracting firms develop into the second stage. The execution of the smaller projects is then carried out by the small local contractors in the third phase. This again evolves gradually to the fourth stage where most of the local works, regardless of magnitude, are undertaken by local contractors. Where necessary, joint ventures with foreign firms may also be instituted at this stage. For various reasons, local contractors may eventually diversify and venture overseas to yet other countries in their final phase of evolutionary development.

Along similar lines, a much acclaimed study of the stages of national economic growth has also been carried out by Rostow (1962). In suggesting the possibility of identifying all societies under one or another economic dimension, Rostow (1962) has advocated five categories which include the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass consumption. As appear to be the case of most economic models used in the formulation of development plans, Kinsey (1988) argues that Rostow (1962) has, likewise, failed to consider the marketing factor. If this is true, Kinsey (1988) contends, then Rostow's (1962) stages of economic growth are merely a treatise of the dynamic theory of production. Nonetheless, Rostow (1962) seems to has recognised the marketing vacuum in an espousal presented at a later stage. In a subsequent paper to the AMA, Rostow (1965) appears to has demonstrated this lacuna clearly following a call to consider the concept and implications of a national market on economic growth. Therein, Rostow (1965) has conceded the applicability of marketing when a society evolves from technological maturity to the age of high mass consumption. Rostow's (1965) apparent change of mind appears to reflect a reconciliatory orientation

towards marketing. The marketing process which can offer ample construction opportunities, however, manifests itself most during the "preconditions for take-off" where the building of social overhead capital such as ports, roads and railways, etc., tends to be intensified. As such, the state plays an extremely important role in this building process. This point appears to be well taken by Shutt (1982) in an attempt to demarcate the relationship between location and types of construction in the client's market. Construction markets, Shutt (1982) suggests, can be defined according to product type, client and location. A market can therefore be local, regional, national or overseas. In relating these variables together, Shutt (1982), for example, has observed a tendency for the construction of large-scale roadworks to come under governmental control both within and outside the national boundaries of a country.
The range of projects and product types demanded by any one society appears to be dependent on the stage of development of that society. As Mentzer and Samli (1981) have noted, different countries are generally at different phases of development. In one country alone, Lange and Mills (1979) have even recognised that the distribution of construction activities does not necessarily have to remain constant over time. Rather, substantial shifts in the types of construction are expected to happen from year to year. Similarly, the influence of localism can also be significant. As Colean and Newcomb (1952) have stressed, the type of construction most active at any given time can therefore fluctuate widely from one locality to another. Because of these variabilities, a model for the transfer of marketing technology to the less developed countries as proposed by Mentzer and Samli (1981), of necessity, has evolved through four stages in line with the economic development of each country.
Returning now to Rostow's (1962) growth paradigm, there were, in fact, questions raised over the issue of what is likely to happen after the age of high mass consumption. In a supplement to these earlier postulations, Rostow (1965) appears to have endorsed a need to reconsider the role marketing has in economic development, and that

> "In one developing country after another, the perception is spreading that the next phase of development must be based on a systematic diffusion of the modern skills, on the making of efficient national markets; and, from this widened base, on the generation of new lines of diversified exports which alone promise to earn the foreign exchange which the developing countries will need in the years ahead (Rostow, 1965:193)."

This point was taken up in recent times by Baker (1987) who observes that Rostow (1962) had acknowledged the lacuna left behind in response to what lies beyond high mass consumption. Baker (1987) has, however, subsequently undertook to make good this vacuum in the model with a revised "pinnacle" theme in search of quality. This, in effect, provides Baker (1987) with the thrust to synthesise most of the issues which have been propounded thus far. In the light of what has been written about the classifiable stages of construction, marketing and economic development, there is

now clearly a need to collectively review all these ideas and concepts to see how they can be related as a whole. This appears to be one area which many researchers have tried to avoid for fear of ridicule from their contemporaries. Despite all these difficulties, Baker (1987) has, nonetheless, been instrumental in integrating some of these ideas and concepts to provide the much-needed coalescence which, in his own words, represents "true synthesis". For amalgamation purposes, Baker (1987) has adopted Maslow's (1954) hierarchy of needs, Rostow's (1971) revised stages of economic growth, and also the stages of managerial and technological development. In structuring their logic flow, Baker (1987) has progressed through three coalescing trends to eventually arrived at the framework set out in Figure 11.2. While Baker (1987) admits that it can be potentially misleading to represent the flow mechanisms as such, it will nevertheless help to substantiate their coalescing trends in a more symbolic manner.

It is of interest to note that all the phases of development proposed by Baker (1987) have collectively passed through five stages. This phenomenon could have been spurred by Abraham H. Maslow (1954) in his five stages of the needs hierarchy. This tendency seems to offer further opportunities for Baker (1987) to expand on marketing and economics, and for Kaynak and Hudanah (1987), and Moavenzadeh and Hagopian (1984) to expand respectively on marketing and construction practices which have been dealt with earlier in this section.

With this in mind, an attempt has been made here to develop Baker's (1987) framework to further incorporate the works of Kaynak and Hudanah (1987), and Moavenzadeh and Hagopian (1984). The result of this extension can be seen in Figure 11.3 where Baker's (1987) framework is now streamlined with marketing and construction practices. While Figure 11.3 attempts to provide an assimilation of what one would reasonably expect to encounter in real life, it is not in any way a finite representation of what must always develop in practice. Nevertheless, as Baker (1987) has pointed out earlier, an approach of this nature, despite all odds, can help to provide at least an interactive overview of how developments in the various disciplines may relate to one another. In the process, a better appreciation of their evolution can be nurtured which will in turn focus one's mind as to how this framework may be used gainfully to facilitate developmental planning at both the macro and micro levels. Figure 11.3 is therefore not absolute because there may be overlaps both within and between stages in the various disciplines. In effect, some stages may even be overridden or omitted altogether. Despite its inherent shortcomings, the overall framework depicted in Figure 11.3 nonetheless appears to provide some validity for planning the use of resources to match actual or anticipated demands. Road's (1982) study into the development plans of the Middle East during the early 1980s offers some justifications for the layout postulated in Figure 11.3. Road (1982) suggests that if one is looking at the Middle East from the point of view of marketing opportunities for foreign construction firms, one must

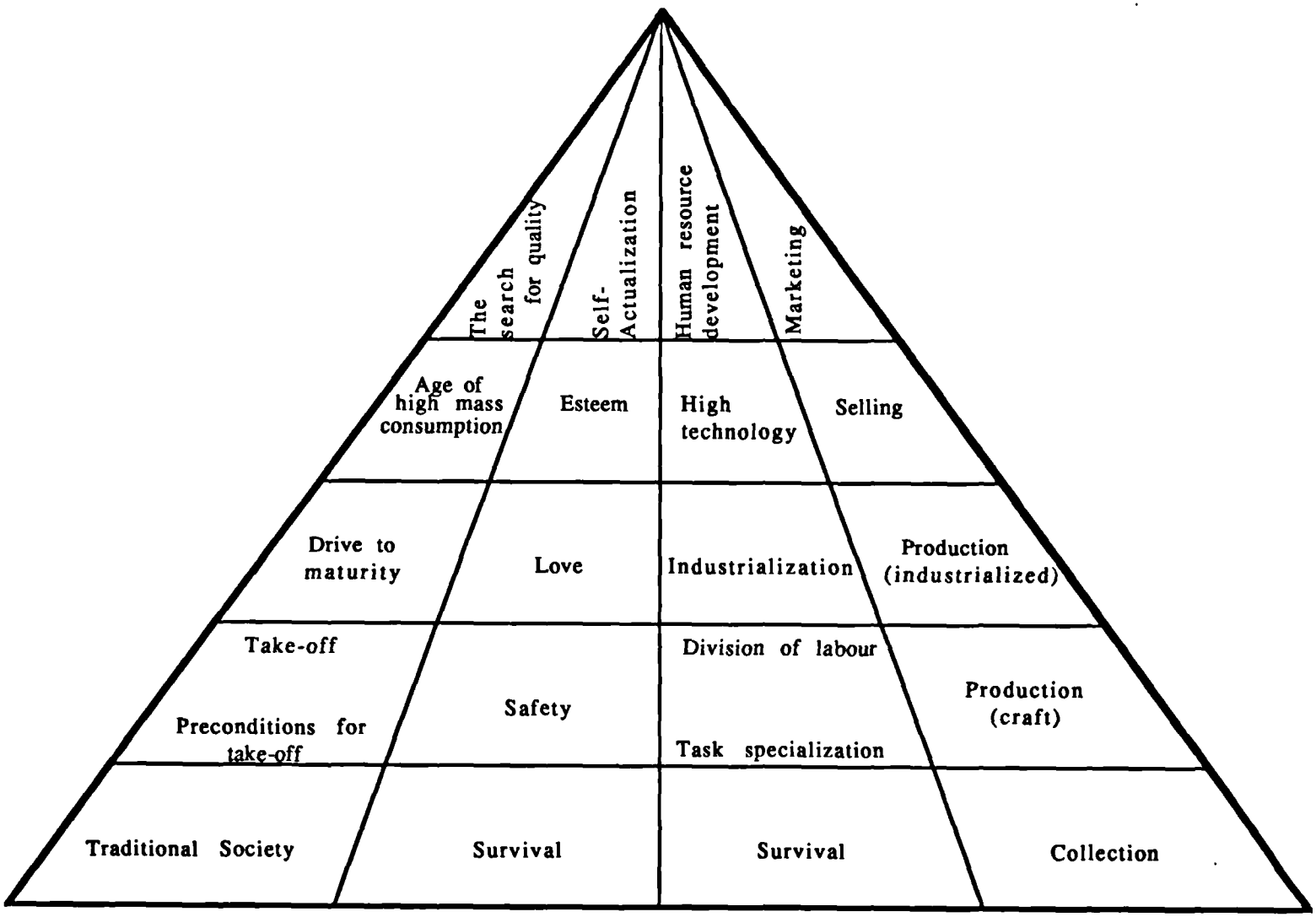



FIGURE 11.2 : COALESCING TRENDS

(Adapted from M. J. Baker (Ed.), "The Marketing Book", Heinemann, 1987, p. 423.)

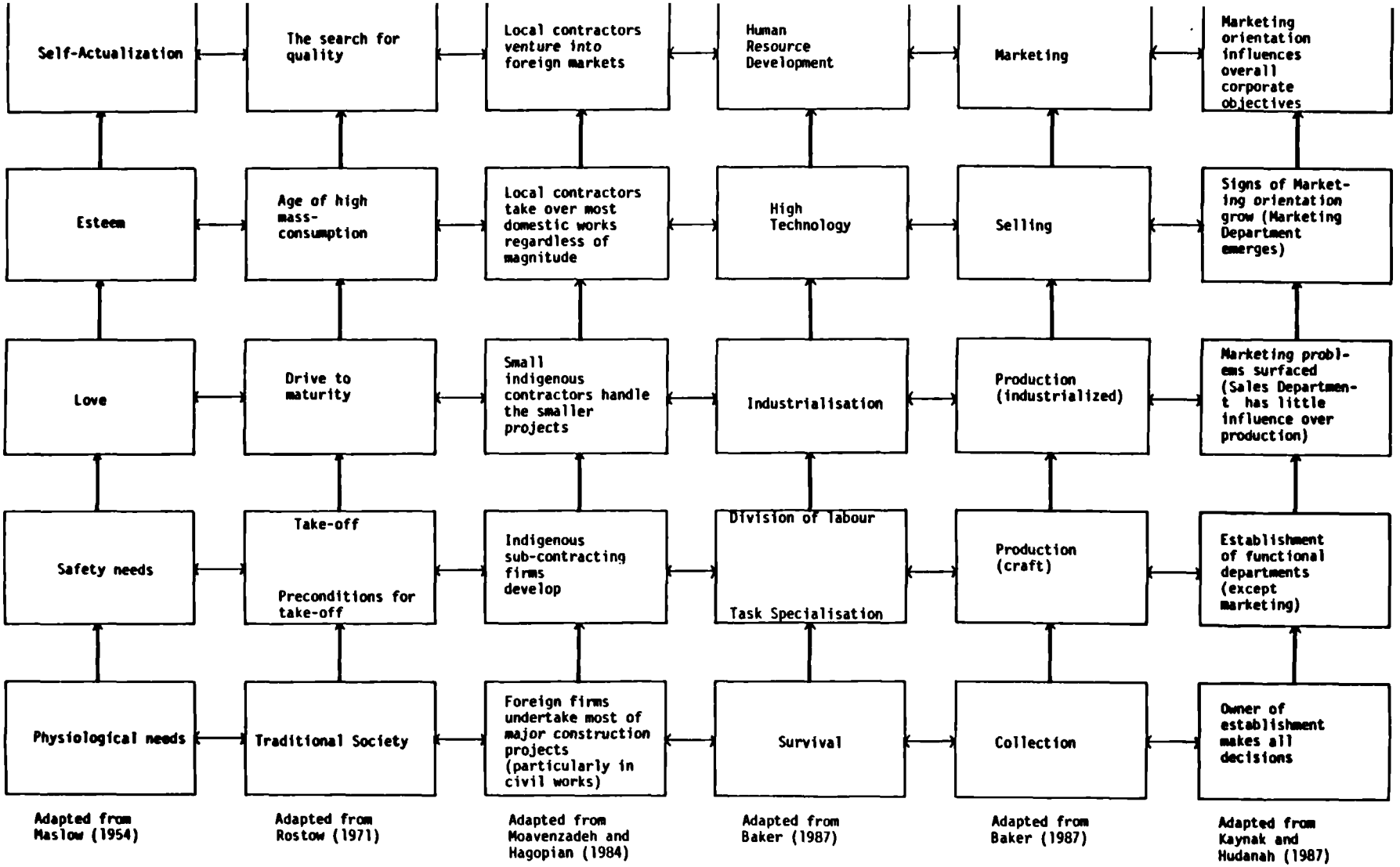



FIGURE 11.3 : A MATRIX FOR PLANNING AND IDENTIFYING OPPORTUNITIES IN CONSTRUCTION

then take into account how its development has progressed over time, i.e. the stages through which it has or is likely to pass. In so far as the Middle East is concerned, Road (1982) has identified two overlapping stages of development which are not mutually exclusive. In stage one, the emphasis of the oil-producing countries in the Middle East lies not only in providing the basic communications and social infrastructural facilities, but also in creating the requisite employment opportunities following their planned gradual diversification away from a complete reliance on oil revenues. In stage two, the rural migration to cities then creates an increasingly growing pressure on all public utilities such as water supply, sewerage, power generation and transmission, transportation, telecommunications and housing. As such, the major improvements to utilities and the establishment of new housing estates have consequently helped to provide a further impetus for the construction industry. As a corollary to the above demands, a reciprocal need to provide equivalent services in the rural areas to halt the migration to the cities has also offered additional construction opportunities quite similar to those which crystallised in stage one. Progress along this direction may subsequently lead to the establishment of local industries and to an increase in demand for a growing range of building materials and components. Along with these developments, training institutions may also need to be set up to prepare the locals for more technically challenging jobs. Although further diversifications away from an exclusive reliance on the oil industry can be anticipated, the need for every types of maintenance services to support these installations may provide yet further potential works for firms which specialise in this area. As Road (1982) has argued,

> "If one follows this 'staged' approach, one can at least identify more clearly the sectors within which particular projects - and the associated business opportunities - are likely to emerge. However, to be able to take advantage of opportunities (whether they are identified by country market or by sector market), each individual firm must equate them with its own capability to supply or service within its own long-term marketing strategy (Road, 1982:126)."

Chow (1984) similarly claims that by finding out the percentage contribution construction has in the GDP of a particular country, construction firms will have an idea of which stage of development that country is in and may then decide whether or not to venture into its construction market.

11.6. GOVERNMENTS UNIFICATION ROLE

Although it may not be realistic for construction firms to rely exclusively on state support to bridge them over leaner times, there appears to be a reasonable expectation for the government to play a leading role in integrating all the industrial efforts for resolving economic ills. The direct and indirect influences exerted by a government in export promotion, apart from blatant protectionist measures and outrageous subsidies, seem to provide an acceptable guiding force

which will not provoke or incur the wrath of their trading partners in the competitive international market.

Hillebrandt (1974), as such, has endorsed the influential role which a government has over the management of construction within the national economy. In managing an economy, the government seeks to achieve four major objectives which relate mainly to solvency (in balance of payments terms), growth (standard of living in per capita terms), control of inflation, and an acceptable level of employment for its resources. Because of the possibility of governmental intervention in an economy as well as the important role marketing has in economic development, Kinsey (1988) maintains that the relevance of marketing in government planning should not be in doubt. As Kinsey (1988) has advocated,

> "Marketing provides the means to assess what favourable resources a country possesses and a method of ensuring they are used to best effect (Kinsey, 1988:145)."

The central role government has in organising, promoting and increasing exports has similarly been addressed by Godfrey (1972) who also suggests the following modes of operations :

1. The government should, via exhortations, pressures and incentives, etc., cultivate a climate which encourages the exploration of foreign markets.
2. The government should set up specialised export marketing divisions to work with companies and industries which have export potentials, and
3. The government should consider commissioning market research projects for the exploration of potential foreign markets and disseminate such information to the industry. Appropriate assistance should similarly be rendered to the industry for the exploration of specific export markets in greater details.

Rao (1976) has maintained that it is the responsibility of the government in a less developed country to lead and nurture an environment which is conducive for economic development. In so doing, Rao (1976) has also suggested six basic components without whose existence marketing's contribution to the process of economic development would remain largely unstructured. These essentially relate to physical facilities, institutional facilities, market accessibility, technology transfer, behavioral factors and regulations. The selective use of fiscal control policies, including subsidies and tax reliefs, in Shutt's (1982) opinion, ranks among the other popular alternatives which governments commonly employ to achieve set objectives. However, this is not to suggest that the role of marketing will diminish as a result. Rather, the implementation of other fiscal control measures should tie in appropriately with a sustained marketing programme. As Godfrey (1972) maintains, a modern scientific approach to marketing can contribute a great deal more to economic development once it has been accepted by those most likely to benefit from it. In the export markets, protectionist tariffs and other expatriation incentives

constitute, at best, only short-term measures. At the international level, Kinsey (1982) has driven home the message that

> "marketing skills are even more central to the development of a country, for, as a country develops, industrial development depends more and more on marketing performance in world markets (Kinsey, 1982:69)."

For countries which have not realised the benefits of cultivating a marketing climate within the context of economic development, Kaynak and Hudanah (1987) have offered two suggestions to initiate the changes required for achieving economic growth. Firstly, at the operational level, there seems to be a widespread need for the formal education of businessmen in order to enhance their appreciation of the marketing principles. In support of this cause, Kaynak and Hudanah (1987) have observed a general neglect of marketing education in the developing countries and that the educational emphasis which has traditionally been placed on technicalities and humanities have produced company executives with little interest in marketing as a management function. Secondly, the regeneration of a marketing orientation within the economy can be carried out by high level industrial administrators through the impositions of development programmes on individual policy-maker. The marketing transformation that follows is likely to evolve in a dynamic pattern to correspond with the changing phases of economic development over a period of time. The time factor, therefore, appears to be the key for understanding the relationship between the marketing environment and economic development. In so far as both Kaynak and Hudanah (1987) are concerned,

> "An examination of how these stages of marketing organisations emerge over a period of time at different levels of economic development, along with the change in the marketing environment and its impact on market structure, would be a comprehensive approach to the study of marketing development in a developing country (Kaynak and Hudanah, 1987:63)."

Along these lines, the exhortations above will provide the scope for a case study of the Singapore construction industry in the following chapter where the domestic economic environment in relation to the institutional development and organisation of a construction export market will be traced over time. It is, however, not the intention here to advocate the Singapore model as the ideal case of universal application for all other developing countries. Rather, the next chapter aims to gather all the necessary evidence to show that the concept of marketing can, and indeed, has been organised at a national level for promoting the export of construction services overseas.

## 11.7. SUMMARY

The roles of marketing and construction were synthesized with economic development. While the relationships between construction and economic development as well as marketing and economic development have been identified separately, the combined influence of both construction and marketing on economic development have not been examined so far. Forward linkages and backward integration appear to provide the synergy for the consideration of both construction and marketing in economic development. Two levels of analysis can be identified for the construction industry in relation to economic development, namely domestic construction works and construction exports. Two levels of analysis can, likewise, be identified for the marketing discipline to include domestic distribution and foreign trade. While the role of construction within the economy can be readily quantified, the measurement of marketing in economic development is, however, still unclear. Surrogate measures have, as a result, been resorted to in the later case. A matrix for synthesizing construction, marketing and economic development was proposed.

REFERENCES


1 Anderson D. A., "Marketing and Development : The Thailand Experience", Institute for International Business, Michigan State University, 1970.

2 Baker M. J., "Marketing. An Introductory Text", 3rd Edition, Macmillan, 1979.

3 Baker M. J. (Ed.), "The Marketing Book", Heinemann, 1987.

4 Bunton J., "World Markets for Construction", Northwood Book, 1979.

5 Candemir Y., "The transport pattern and the challenge of problems of economic development", in Proceedings of the CIB Mini-Symposium, "The Problems of Organisation and Management of Construction in developing countries and International Contracting", Istanbul 1982, pp. II/7-1 to II/7-13.

6 Chow K. F., "Shaping up for the 1990's", Asian Building and Construction, September 1984, pp. 35-39.

7 Colean M. L. and Newcomb R., "Stabilising Construction : The record and potential", 1st Edition, McGraw-Hill, 1952.

8 Dawson J. A., "The Marketing Environment", Croom Helm Ltd. (London), 1979.

9 Drucker P. F., "Marketing and Economic Development", Journal of Marketing, January 1958, pp. 252-259.

10 Farmer R. N., "Would you want your daughter to marry a marketing man ?", Journal of Marketing, Vol. 31, January 1967, pp. 1-3.

11 Godfrey A. W. W., "Tradition and modernity - Marketing in Developing Countries", The Singapore Manager, Vol. 6 No. 1, June 1972, pp. 7-14.

12 Hillebrandt P. M., "Economic Theory and the Construction Industry", Macmillan, 1974.

13 Kaynak E. and Hudanah B. I., "Operationalising the Relationship between Marketing and Economic Development : Some Insights from Less-Developed Countries", European Journal of Marketing, Vol. 21 No. 1, 1987, pp. 48-65.

14 Kinsey J., "The Role of Marketing in Economic Development", European Journal of Marketing, Vol. 16 No. 6, 1982, pp. 64-77.

15 Kinsey J., "Marketing in Developing Countries", Macmillan, 1988.

16 Kracmar J. Z., "Marketing research in the developing countries", Praeger Publishers, 1971.

17 Lange J. E. and Mill D. Q. (Eds.), "The Construction Industry. Balance Wheel of the Economy", Lexington Books, 1979.

18 Maslow A. H., "Motivation and Personality", Harper & Row, 1954.

19 Mentzer J. T. and Samli A. C., "A Model for Marketing in Economic Development", Columbia Journal of World Business, Fall 1981, pp. 91-101.

20 Moavenzadeh F., "Construction and Socioeconomic Growth", reprinted in Unibeam, Vol. XIII, 1984 / 85a, pp. 19-28.

21 Moavenzadeh F., "Global Prospects for Concrete Construction", reprinted in Unibeam, Vol. XIII, 1984 / 85b, pp. 30-41.

22 Moavenzadeh F. and Hagopian F., "The construction industry and economic growth", Asian National Development, June / July 1984, pp. 56-60.

23 Parkinson J. M., "Marketing in Lesser Developed Countries", The Quarterly Review of Marketing, Autumn 1985, pp. 12-15.

24 Rao T. R., "Marketing and Economic Development", Marketing and Management Digest, January 1976, pp. 15-18.

25 Road S., "New development plans in the Middle East", Quantity Surveyor, July 1982, p. 126.

26 Rostow W. W., "The Stages of Economic Growth. A non-communist manifesto", Cambridge University Press, 1962.

27 Rostow W. W., "The Concept of a national market and its economic growth implications", in "Marketing and Economic Development", American Marketing Association, September 1965, pp. 11-20.

28 Sherbini A. A., "Marketing in the Industrialisation of Underdeveloped Countries", Journal of Marketing, Vol. 29, January 1965, pp. 28-32.

29 Shutt R., "Economics for the construction industry", Longman, 1982.

30 Vincent C. D., "Marketing and Economic Development", in Warley T. K. (Ed.), "Agricultural Products and their markets", Basil Blackwell (Oxford), 1967, pp. 75-81.

CHAPTER TWELVE

EXPORT MARKETING OF CONSTRUCTION SERVICES : THE CASE OF SINGAPORE

## 12.1 INTRODUCTION

In Chapter 11, Figure 11.3 has been conjectured to represent the relationships between construction, marketing and economic development. It must, however, be recognised and borne in mind that the matrix suggested in Figure 11.3 has been overly neat and simplistic. Reality tends to be much more messy and chaotic. Nonetheless, some form of simplification is required before a premeditated attempt can be made to explore reality. Furthermore, the matrix may not be of universal applicability for every country. This is because :

1. Some of the phenomena may be overridden altogether when a particular country skipped from one stage of development to another;
2. There may be a co-existence of two or more phenomena in any one country; and
3. Contrary to expectations, there may be reversals instead of economic progress as suggested by the matrix (Woodsworth (1989), for example, notes that some African regions have actually deteriorated economically).

As such, even where empirical data does exist, the matrix constructed may only be uniquely valid for the particular country concerned. A study of the universal validity of the matrix can only be shown by testing the ideas against a sample of countries - which, in this case, is obviously beyond the means available here. In addition, experts in their own fields may find developments in their respective disciplines (i.e. construction, marketing and economics), at best, controversial. Rostow's (1960) ideas, for instance, have been accused of being fuzzy and misleading because of their metaphysical characteristics which defy accurate measurements[1]. Others, in the light of data difficulties, are however more accommodating and receptive to Rostow's (1960) ideas[2]. Rostow (1960), likewise, is not in favour of using GNP per capita as a measure of economic growth unless the contributions from each economic sector can be clearly discernible. Similarly, measurements which purport to indicate take-off into sustained growth are unclear. Rostow (1960) claims this occurs when the ratio of (GDFCF/GDP) rises from 5% or less to more than 10%, among others.

Within strictly defined limits, the matrix may still be acceptable. But if the matrix is to be used for implementation purposes, the severe limitations it has need to be considered thoroughly. To avoid being overly ambitious, the matrix has been confined to only the Moavenzadeh-Hagopian (M-H) Model for the purpose of this Chapter. The basic M-H Model for developing countries is shown in Figure 12.1.

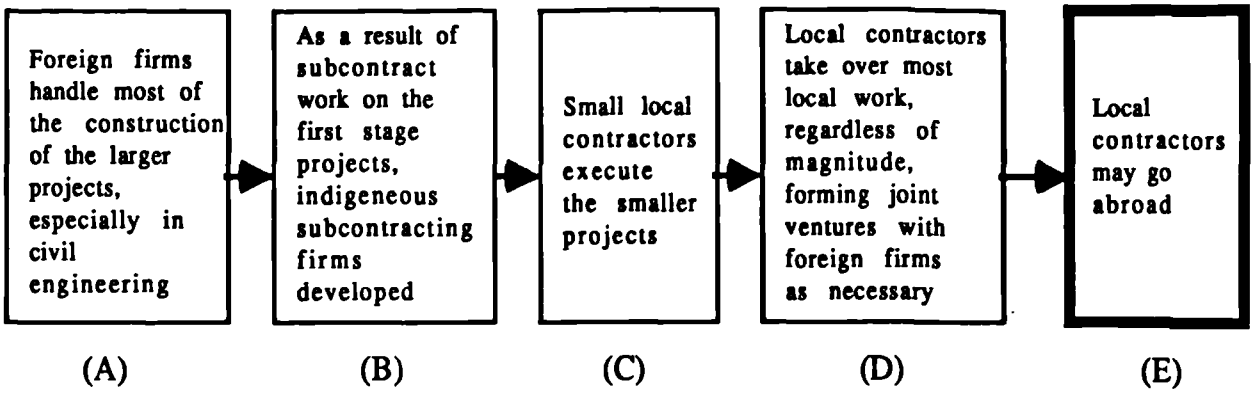



FIGURE 12.1 : THE BASIC M-H MODEL FOR DEVELOPING COUNTRIES

Stage (E) signifies the time when marketing and international construction contracting go hand-in-hand. The contention here is that the M-H Model has not been explicit enough where Stage (E) is concerned and that the chronological developments leading to Stage (E) ought to be examined in greater details from a national marketing standpoint. Furthermore, the reciprocity effects have not been dealt with by Moavenzadeh and Hagopian (1983) when local contractors themselves, in turn, venture into countries both less and more developed than their own. The iterative nature of these effects is shown in the revised M-H Model in Figure 12.2.

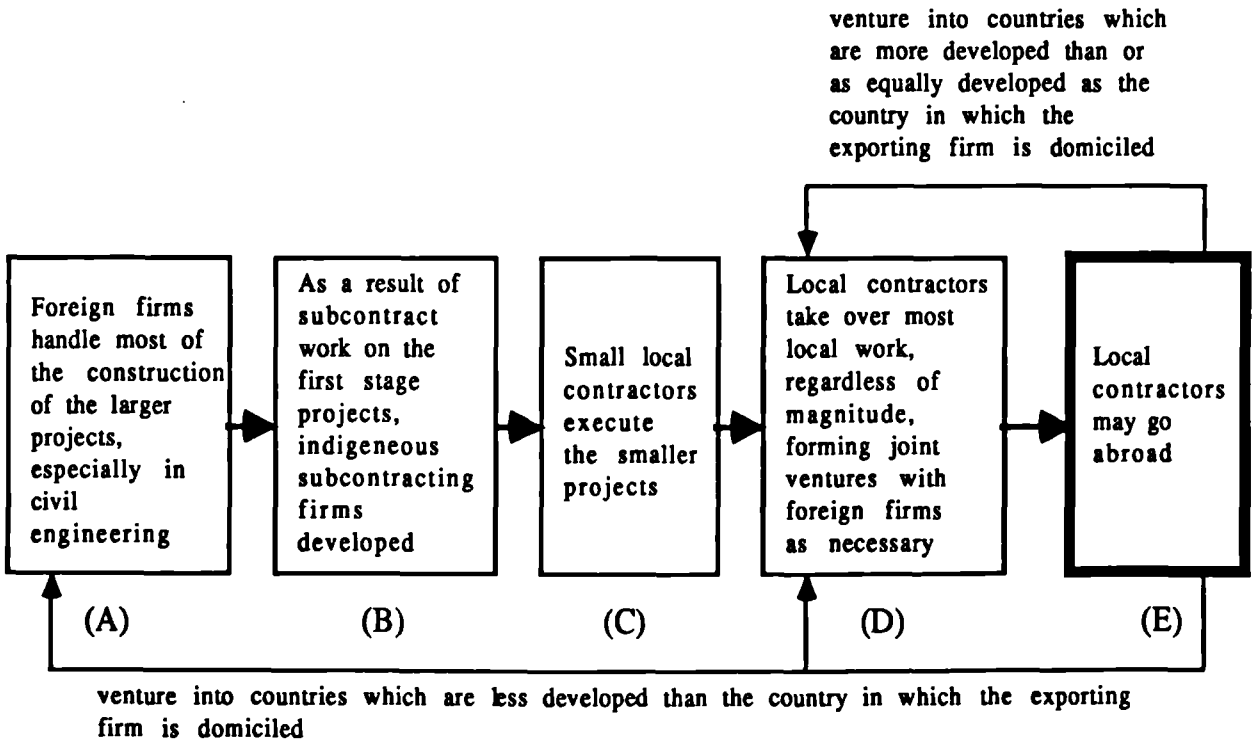



FIGURE 12.2 : THE REVISED M-H MODEL

There are generally two situations where local construction firms in developing countries may venture overseas :

1. Where domestic demand for construction is high (i.e. good times), local firms may still venture overseas (at Stage (E) in the M-H Model). However, the government's role in marketing construction services abroad is likely to be less significant here.
2. Where domestic demand for construction is low (i.e. bad times), local firms may be compelled to venture overseas (at Stage (E) in the M-H Model). Government's effort in helping these firms to market their services overseas is, however, likely to be more pressing here.

With reference to the two generalisations above, the hypothesis for this Chapter may therefore be construed as follows :

"When the construction sector within the economy of a developing country starts to contract after a period of sustained growth, the need for local contracting firms to export their construction services into overseas markets may become increasingly compelling. Furthermore, where the contracting industry is a relatively young and fledgling one, the nurturing role of the government in international marketing may need to be intensified".

For the purpose of this Chapter, Singapore, as a Newly Industrialising Country (NIC), has been selected for study. While Chapter 11 provides a broad theoretical treatise of the role of marketing and construction in the economy during the process of economic development, this Chapter serves to examine the narrower relationship between international construction and marketing along the path of economic development in Singapore. In essence, the investigations will focus on the role of the Singapore Government when local construction firms began to contemplate the marketing of their services abroad. This approach will allow emphasis to be placed on the Government handling of the economy in the 1980s, the evolution of an organised national marketing effort and how these have phased in to benefit the local construction firms in international contracting. Hence, developments in Singapore during the 1980s may serve to clarify and expand on the M-H Model in so far as Stage (E) is concerned.

The study here is likely to be useful for other developing economies on the premise that they will in turn one day evolve to become NICs with export marketing of construction services high on the priorities' list. As Keegan (1984) has noted,

> "The foundation for a successful global marketing programme is a sound understanding of the marketing discipline. Marketing is the process of focussing the resources and objectives of an organisation on environmental opportunities and needs (Keegan, 1984:2)".

Marketing efficiency at the national level, Dawson (1979) suggests, can be promoted by :

1. An open-door policy in line with a political philosophy which advocates

increased marketing efficiency through increased competition.

2. A system of government regulations for improving an industry by restricting or encouraging the entry of firms into the industry; and
3. A system of rationalisation aimed at encouraging modernisation and investment in particular parts of an industry.

Dawson's (1979) contentions appear to be of significance in so far as developments in the Singapore construction industry is concerned where issues relating to protectionism, contractors' classification and registration, and industrialisation / mechanisation have been raised over the years. These issues will be dealt with shortly in this Chapter.

## 12.2. A BRIEF HISTORY OF SINGAPORE

The Republic of Singapore, an island of some 650 square kilometres, lies just above the equator at the southern tip of the Malaysian Peninsula. Until her establishment by Sir Stamford Raffles in 1819 as an entrepot trading station in the Far East for the British Empire, relatively little is known of her historical origins. Following this initial contact in 1819, Singapore was subsequently ceded in perpetuity to the British East India Company by the Sultan of the then Malayan State of Johor in 1824. Two years later, Singapore was incorporated along with Malacca and Penang to form the Straits Settlements which in 1830 was brought under the Presidency of the Bengal in India. This lasted until 1851 when Singapore was transferred to the direct control of the Governor-General of India, then a British Territory. In 1867, control of Singapore was transferred to the Colonial Office in London. This lasted uneventfully until 1942 following the outbreak of World War II when the Japanese Imperial Forces occupied Singapore. In 1945, after the surrender of Japan, and reoccupation by the Allied Forces, Singapore again came under British rule. A year later, in 1946, Singapore was made a separate Crown Colony under the British Administration.

Internal self-government status was, however, achieved by Singapore in 1959. Four years later, in 1963, with the formation of Malaysia, Singapore became an independent state within the Federation of Malaysia. This association was, however, short-lived. Two years later, Singapore separated from the Malaysian Federation to become a fully independent and sovereign nation on 9 August 1965[3].

As a result of her potentials as an excellent entrepot trading centre, Singapore attracted traders from far afield. An immigrant society eventually evolved. From the first census taken in 1824, the population in Singapore grew from 10,683 to some 2.67m at the end of 1988[4].

## 12.3. FOREIGN INPUTS TO CONSTRUCTION IN SINGAPORE

The foreign elements in construction works have played an important role in transforming Singapore into a modern metropolis. As early as the 19th century, European engineers and architects during the British era have been responsible for

planning and organising the orderly development of the central town area on both sides of the Singapore River where Sir Stamford Raffles first landed in 1819. Buckley's (1902) records of the British legacy in Singapore have indicated the importation of convicts from India for works in jungle clearance, land filling and road construction. Town plans were laid out; bridges, dry docks, harbours, lighthouses and reservoirs were built. Singapore's water supply first originated in 1857 when facilities to convey water from MacRitchie Reservoir to the town area was begun. The first gas works started in 1862 in Kallang. Electricity, likewise, was made available to the public in 1906, and following the commissioning of St. James Power Station in 1926, capacity was expanded further[5].

The presence of foreign-owned construction firms in Singapore had been felt early. The Oral History Department (1986), for instance, has noted the works of Riley, Hargreaves & Co. Ltd. (a European-owned firm which started in 1865) in the late 19th century when many of Singapore bridges and godowns were built. Howarth Erskine Ltd., another European-owned engineering firm was already building waterworks, sea reclamation, railways, roads and electrical works in the 1870s. In 1912, both firms combined to form United Engineers Ltd., becoming in the process, one of the largest engineering companies in the region. While the Chinese locals were then primarily engaged in trading, both the Oral History Department (1986) and Buckley (1902) have recognised building as a secondary activity of the Chinese locals, particularly in residential construction and warehousing.

The impact of foreign construction firms in Singapore can be felt even after Singapore has attained NIC status, particularly in the complex mega-projects where they have a tendency to dominate. Their omnipresence in the Singapore construction industry can be appreciated when the Central Registry of Public Sector Contractors was first set up in August 1984. Table 12.1 depicts the concentration of local and foreign contractors in six different financial categories (A1 to A6) according to construction types as at 31 March 1985. The domination by foreign firms in the A6 category is clearly noticeable.

Construction firms from the United States, Australia, Great Britain, France, Holland, Hong Kong, Italy, Japan, South Korea, Taiwan and West Germany, among others, have all participated actively in construction works in Singapore

## 12.4. SINGAPORE ECONOMY : INDUSTRIALISATION AND DEVELOPMENT

Along with many other newly independent countries regarded as "Born Free"[6], Singapore likewise has the benefit of inheriting a substantial volume of complex infrastructural facilities from the British in 1959. Following independence in 1965, Singapore first embarked on a massive development programme to provide housing and employment for her population. Progress since then has been swift and effective. Before the economic watershed in 1985, three distinct phases in the

| | A1 $500,000 | | A2 $1m | | A3 $3m | | A4 $5m | | A5 $10m | | A6 Above$10m | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | F | L | F | L | F | L | F | L | F | L | F | |
| Civil Engineering | 161 | 2 | 112 | 0 | 36 | 2 | 28 | 0 | 16 | 2 | 22 | 49 | 430 |
| Building | 180 | 1 | 129 | 1 | 45 | 0 | 38 | 1 | 35 | 3 | 34 | 46 | 513 |
| Piling | 6 | 2 | 7 | 6 | 9 | 0 | 3 | 3 | 8 | 4 | 3 | 18 | 69 |
| Roads | 128 | 1 | 69 | 4 | 21 | 0 | 17 | 2 | 5 | 0 | 8 | 29 | 284 |
| Earth Works | 96 | 2 | 38 | 1 | 12 | 0 | 6 | 1 | 5 | 3 | 4 | 31 | 199 |
| Total | 571 | 8 | 355 | 12 | 123 | 2 | 92 | 7 | 69 | 12 | 71 | 173 | 1495 |

Source : Annual Report 1984/85, Construction Industry Development Board (CIDB), Singapore, p. 10
(L=Local contractors; F=Foreign contractors)

TABLE 12.1 : CONTRACTORS OF SELECTED HEADS REGISTERED WITH THE CENTRAL REGISTRY

industrialisation programme can generally be identified between 1966 and 1984.
In the first development phase (1966-1973), the main priority was job creation, basic industrialisation and housing for the people. Trade was liberalised and the strong growth in world trade was quickly capitalised. Real GDP expanded by an average of 12.3% per annum over this period. The Economic Development Board (EDB), set up earlier in 1961 as part of the Ministry of Finance, played an instrumental role in attracting foreign investment to Singapore as well as in providing loans and equity participation[7]. With industrial development as its charter, the EDB proceeded to strengthen the manufacturing sector with a view of securing employment for the then masses of both unemployed and unskilled people[8]. This was achieved in the main by transforming swamp lands in the southwest of the island into a concentrated industrial estate and in offering various economic incentives to investors who were prepared to invest in Singapore. The EDB is henceforth responsible for administering various tax incentive schemes under the Economic Expansion Incentives Act which was introduced in 1967[9]. By the end of 1967, two incentives were offered to quicken the pace of industrialisation - a five-year tax holiday to pioneer companies which manufactured approved products and tax concessions to approved export-oriented companies. With development of the Jurong Industrial Estate in the Southwest well underway, the tremendous response received by the EDB made it necessary for the Board to divest some of its more pressing businesses to other statutory bodies set up for this purpose. In 1968, the Jurong Town Corporation (JTC) was set up to take over the development and management of the Jurong Industrial Estate from the EDB. The Development Bank of Singapore (DBS) was similarly set up in 1968, with the government having a 49% interest, to finance industrial development[10]. Wong (1988) notes that it is during this time that most Asia-Pacific economies have their critical industrial take-offs; i.e. in the 1960s and early 1970s.

As with many other countries, the global oil crises of the 1970s punctuated the second phase of development in Singapore (1974-1977). Real GDP growth averaged about 6.4% per annum over this period. Having buffered the oil price shocks, the industrial base shifted into more sophisticated areas of production with emphasis placed on higher technology and skills.

In the third phase of development (1978-1984), the objective was directed towards phasing out low cost and low value added industries with a long-term view of expanding Singapore's exports in both the traditional as well as new markets. This period reflects governmental effort to get Singapore's exports onto the world grid and to look further afield rather than be locked up in the more traditional markets. The government embarked on what would appear to be Singapore's "Second Industrial Revolution" with an astute and ambitious restructuring of the economy to help turn Singapore into a centre of excellence for technology, manufacturing and services. A high wage, high cost policy was pursued to corner industry into investing in high value added areas. This appears to work initially when real GDP growth averaged about 8.8% over this period. Nonetheless, the risks involved seemed to have been under-rated. When progress in high technology slowed down considerably to below expectations, the government attempted to maintain economic growth by pumping money into the construction industry. This appears to work well until 1985 when the inevitable happened. Following the downturn in external demand, serious structural problems were exposed with the result that the economy of Singapore encountered its first year of negative growth since 1965[11].

An Economic Committee was consequently appointed in April 1985 to study and make recommendations to the government. Eight sub-committees were appointed in turn to look at the various key sectors of the economy, including construction. The Economic Committee submitted its report in February 1986. In their report, the Economic Committee recognised that the government's call to increase value added per worker has unintentionally caused a reversal effect which both turned away potential investors and stifled existing investors as a result of the high operational costs. This arises when manipulative increases in wages and CPF rates[12] - in an attempt to force firms to upgrade, mechanise and automate their operations - have the effect of pushing up labour costs still further. This phenomenon should have been evident during the recession in the early 1980s if not for the extremely buoyant construction market which has managed to mask it completely. The economic woes became structurally evident only when construction started to slow down. By this time, a negative trend in GDP has already become apparent - the first in two decades since independence.

In their analysis, the Economic Committee observed that Singapore has reached the income level of a developed country without yet attaining a developed structure

found in the latter. At the pace the economy was currently developing, the Committee believes that Singapore is unlikely to reach a developed status until the 1990s. Lim (1988), however, suggests that Singapore has already reached developed status following the United States' retraction of its Generalised System of Preferences (GSP) benefits from Singapore in January 1988[13].

Despite the severe economic setback Singapore endured in 1985, her economy on the whole compares favourably with other economies. Figure 12.3 shows the economic development of Singapore in relation to other market economies and the rest of the world between 1960 and 1985.

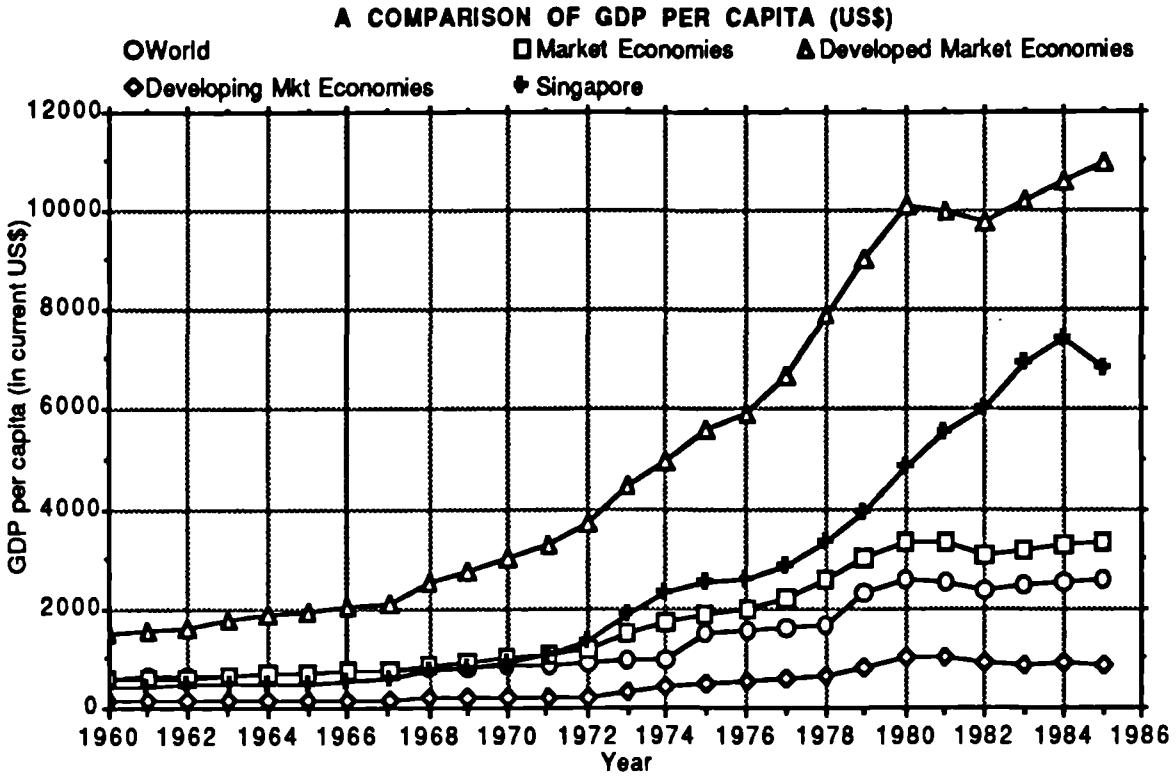
It can be seen that while GDP per capita for Singapore has always remained below those achieved by the Developed Market Economies, it has nevertheless remained consistently above those of the Developing Market Economies. This has progressed steadily along an upward trend until 1985 when it dropped abruptly. Singapore's GDP per capita also compares favourably with the figures for both the Market Economies and the World since the early 1970s.

A comparison of GNP per capita between Singapore and a few other selected countries is shown in Figure 12.4 for year 1960 and 1986. While it can be seen that Singapore has a poor start in relation to many other countries in 1960, she has nonetheless surged ahead to overtake Ireland, Spain, Greece and South Korea in 1986.

The EDB has played and will continue to play a key role in directing the Singapore economy into the future. Among others, EDB's main thrust towards the end of the 1980s had placed emphasis on quality, in boosting the service sector and in encouraging Singaporean companies to venture overseas[14].

Before proceeding further to examine the role of construction in the economy of Singapore, it would be useful to review how the government has set out to solve the acute housing problems which it faced following internal self-government status in 1959. A high priority has been accorded to housing because of its effects on both the social and political stability in Singapore's industrialisation programme. The government recognises that the workforce needs to be adequately housed before their stake in the economy well-being can materialise. This policy gave rise to a massive housing programme which commenced in 1960 following the establishment of the Housing and Development Board (HDB) to take over the work of the Singapore Improvement Trust (SIT). The SIT was subsequently disbanded[15].

Beginning in 1960, the HDB has progressively implemented a series of Five-years building programmes to meet the housing requirements of the general population. Table 12.2 shows the total number of units completed by HDB between 1960 and 1985 over 5 Five-years building programmes. At the time of writing, the Sixth Five-years building programme is still underway.



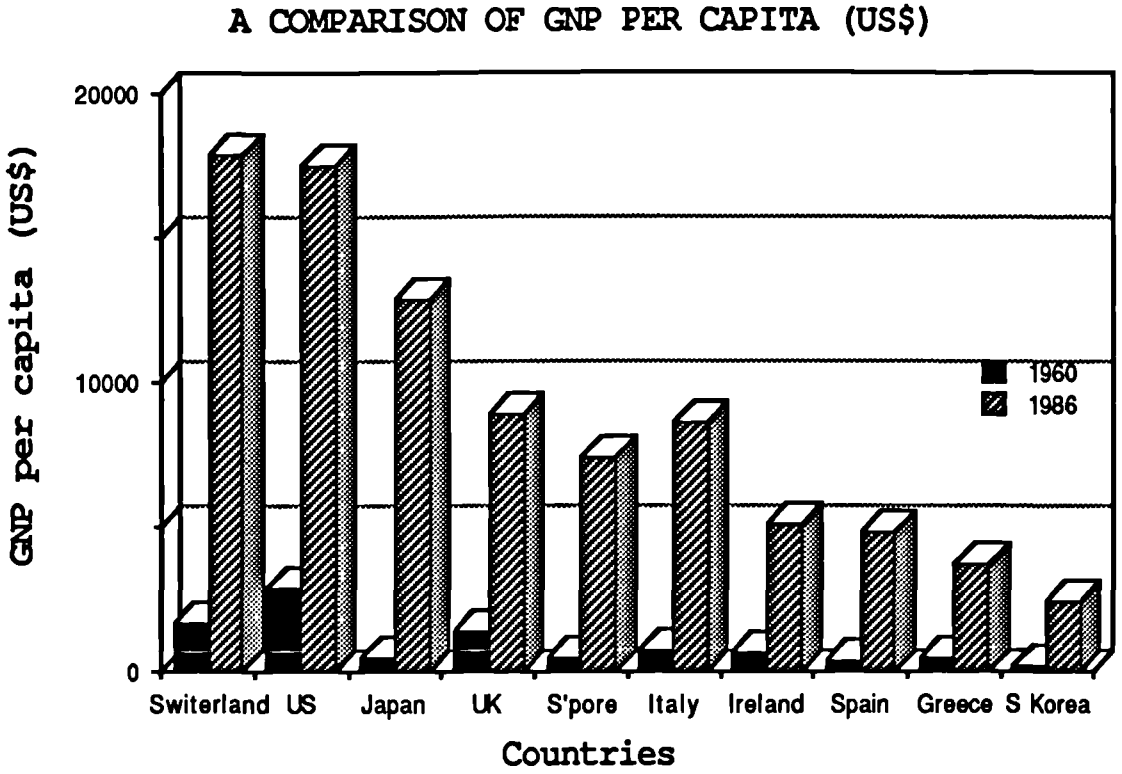

Sources : National Accounts Statistics : Analysis of Main Aggregates; United Nations; various issues.
Yearbook of National Accounts Statistics; United Nations; various issues.
(Figures for 1961, 1962, 1964, 1965, 1966 and 1967 extrapolated using average annual rates of growth of GDP. For World data, figures for 1960-1969, 1971-1974 and 1976-1978 extrapolated using average annual rates of growth of GDP).

FIGURE 12.3 : GDP PER CAPITA FOR SINGAPORE, DEVELOPING MARKET ECONOMIES, DEVELOPED MARKET ECONOMIES, MARKET ECONOMIES AND THE WORLD BETWEEN 1960 AND 1985.

| Five-years building programme | Period | Units completed |
|---|---|---|
| 1 | 1960-1965 | 54,430 |
| 2 | 1966-1970 | 66,239 |
| 3 | 1971-1975 | 113,819 |
| 4 | 1976-1980 | 137,670 |
| 5 | 1981-1985 | 200,377 ** |

Source : Annual Report 1986/87; HDB.
(** including Housing & Urban Development Corporation (HUDC) units built by the Urban Redevelopment Authority (URA) in 1982 and after. HUDC was absorbed by HDB in 1982).

TABLE 12.2 : TOTAL NUMBER OF UNITS COMPLETED BY HDB BWTEEN 1960 AND 1985.




Source : World Bank Atlas 1988; World Bank 1988.
The 1988 update of the 1987 World Bank Atlas; World Bank 1988.
World Bank Atlas; World Bank; various issues.
(GNP per capita figure for Singapore in 1960 based on GDP estimates).

FIGURE 12.4 : GNP PER CAPITA (IN CURRENT US$) FOR SWITZERLAND, US, JAPAN, UK, SINGAPORE, ITALY, IRELAND, SPAIN, GREECE AND SOUTH KOREA FOR YEAR 1960 AND 1986.

To-date, some 90% of the population is now housed in HDB flats. The housing programmes themselves have been subjected to much changes over the years to reflect the growing aspirations of both the tenants and owners. Liu, Lau and Loh (1983), for instance, having traced the conceptual evolution of physical design for HDB housing, had provided the following national housing objectives between 1960 and 1985 :

| Period | Objectives |
|---|---|
| 1960-64 | Shelter |
| 1964-74 | Facilities and quantity |
| 1974-79 | Quantity and quality |
| 1979-85 | Quantity, quality and communication development |

Singapore's First Development Plan was conceived to cover the period 1961 to 1964[16]. This was the only Development Plan published for members of the public. A Second Development Plan has also been prepared but this was not made available for the public when it was subsequently realised that the Plan has become unrealistic in the

face of rapidly changing expectations. Following the completion in 1963 of a study by the United Nations' Department of Economic and Social Affairs into the "Growth and Urban Renewal in Singapore", the government, in response, has embarked on an intensified programme of construction - new housing estates, industrial estates, roadworks, mass rapid transit - which stretched well into the 1980s[17]. The public sector, as a result, becomes the largest employer in the construction industry in Singapore. Along with this, the government therefore commands and wields considerable power and authority in formulating policies for the construction sector of the economy. This, as can be seen later, plays an important role in nurturing local construction firms for an eventual thrust overseas[18].

## 12.5. CONSTRUCTION IN THE SINGAPORE ECONOMY

The capacity of the construction sector in the Singapore economy has not been surveyed to any significant extent apart from an inquiry into the constructional capacity of Singapore in 1961[19]. This inquiry appears to be a response to the rapid development programme which the government was about to launch in the early 1960s. This also seems to be the only official study so far, not at least until 1985 when, following the downturn of the Singapore economy, a Property Market Consultative Committee (PMCC) was appointed by the government to formulate an action plan for the property sector[20]. The appointment of the PMCC by the Minister of Finance has also placed considerable emphasis on how job opportunities may be created for both the professional designers and contractors.

The role of construction in economic development has been a subject of much study in general. The ubiquitous results of much of these studies have unanimously urged the government to play a lead role in capitalising construction works for economic growth. The World Bank (1984), for example, in its study on the issues and strategies of the construction industries in developing countries, had emphasized the importance of the industry to national economies and various forms of governmental support in this direction. In the Singapore context, Ganesan (1982) has suggested that it was the government who nudged the construction industry on to generate economic development in the process. Ofori (1984, 1985, 1985a, 1988, 1989, 1989a), by far, has provided the most exhaustive evidence of how the construction industry has contributed substantially to the economy in Singapore over the last three decades.

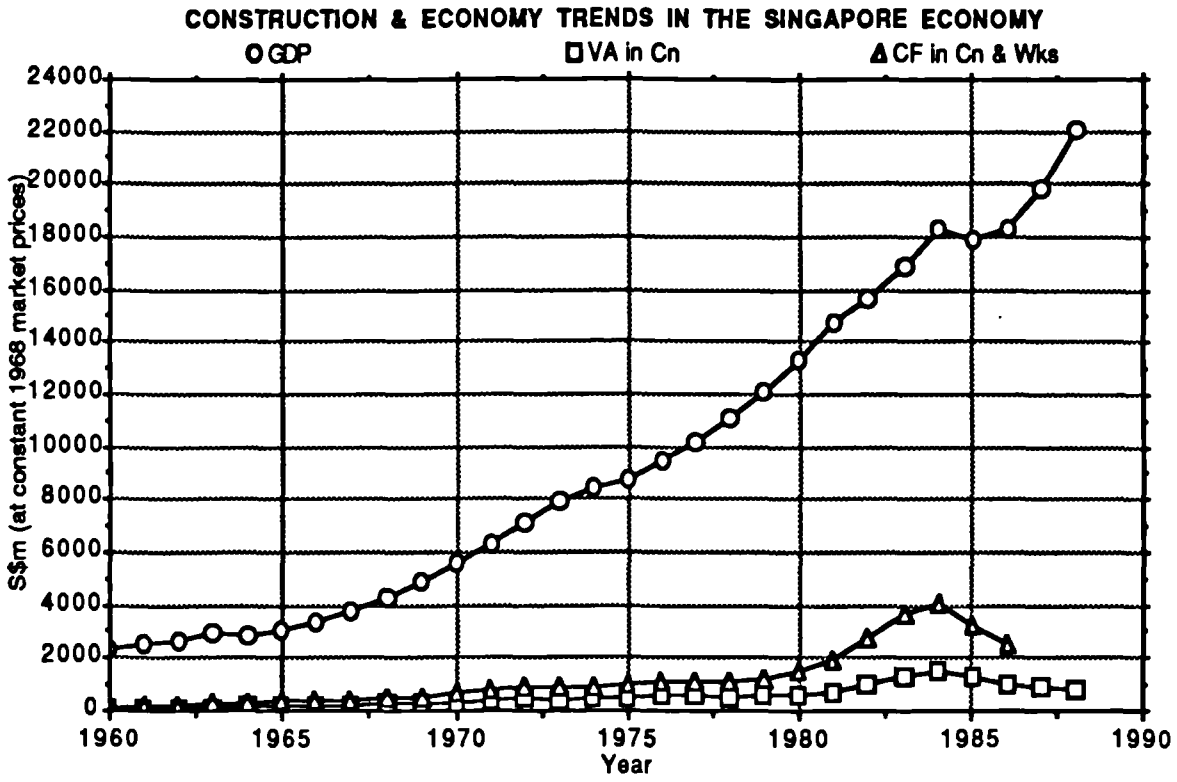
Figure 12.5 attempts to relate capital formation in construction and works, and value added in construction with the GDP trend in Singapore between 1960 and 1988. The economy in Singapore grew consistently throughout this period apart from 1963 and 1985 when GDP growth shrank by -3.5% and -1.8% respectively. Value added in construction ranged from a low 3.5% (in 1960) to a high 8.5% (in 1984) of GDP. The growth rates for value added in construction in Singapore however felled in 1966 (-0.8%), 1973 (-8.7%), 1977 (-2.2%), 1978 (-7.3%), 1985 (-11.8%), 1986 (-26.4%), 1987

(-11.7%), and 1988 (-4.5%). It became apparent that contractions in the construction sector have been more severe in the period after the mid-1980s. Between 1960 and 1986, capital formation in construction ranged from a low 30.5% (in 1974) to a high 59.7% (in 1967) of Gross Domestic Fixed Capital Formation (GDFCF). Between the same period, growth in capital formation in construction and works fell in 1966 (-2.7%), 1973 (-7.3%), 1985 (-19.1%), and 1986 (-22.2%). Again, it is apparent that the contractions in constructional capital formation have been more pronounced in the mid-1980s. As can be seen in Figure 12.5, all the three trends depicted experienced a dip which began in the mid-1980s. While the GDP trend has somewhat managed to pick up again after 1985, the trends for both the value added in construction and capital formation in construction appear to continue on a path of decline.

Figure 12.6 traces the relationship between Producers' Durable Goods (i.e. machinery and equipment, etc.) and the total construction component in GDFCF in Singapore between 1960 and 1987. It can be seen that GDFCF has risen sharply from the late 1970s to 1984 after having made gradual progress since the 1960s and 1970s. The sharp rise in GDFCF reaches a peak in 1984. Thereafter, it started to decline, again sharply, until 1986. An examination of the components of GDFCF will reveal the underlying reasons for the sharp rise and fall in GDFCF in the first half of the 1980s. Of the three components in Figure 12.6 - i.e. total construction and works, machinery and equipment, and transport equipment - the construction component has experienced a sharp rise in 1980 which peaked in 1984. Thereafter, it has been on the decline until, at least, 1987. If not for the predominant rise in Producers' Durable Goods after 1985, GDFCF will not have experienced another upsurge in 1987.

Figure 12.6 demonstrates clearly the major role occupied by construction in GDFCF in Singapore in the 1980s. It would appear that GDFCF in the Singapore economy in the late 1970s and early 1980s had followed closely the trend of development in the local construction industry. A separate examination of the sub-components which, in turn, go to make up total construction and works in GDFCF would therefore be appropriate.

This analysis can be seen in Figure 12.7 where the sub-components of residential buildings, non-residential buildings, and other construction and works are highlighted. In addition, Figure 12.7 provides an indication of the likely extent and of how marketing distribution and infrastructural facilities (i.e. as reflected by non-residential buildings, and other construction and works) have emerged in Singapore between 1960 and 1987. It can be observed that building construction has almost invariably played a much larger role than civil engineering construction. Further analyses of the United Nations Yearbook of Construction Statistics for Singapore between 1972 and 1979 have revealed a building content of some 81% of

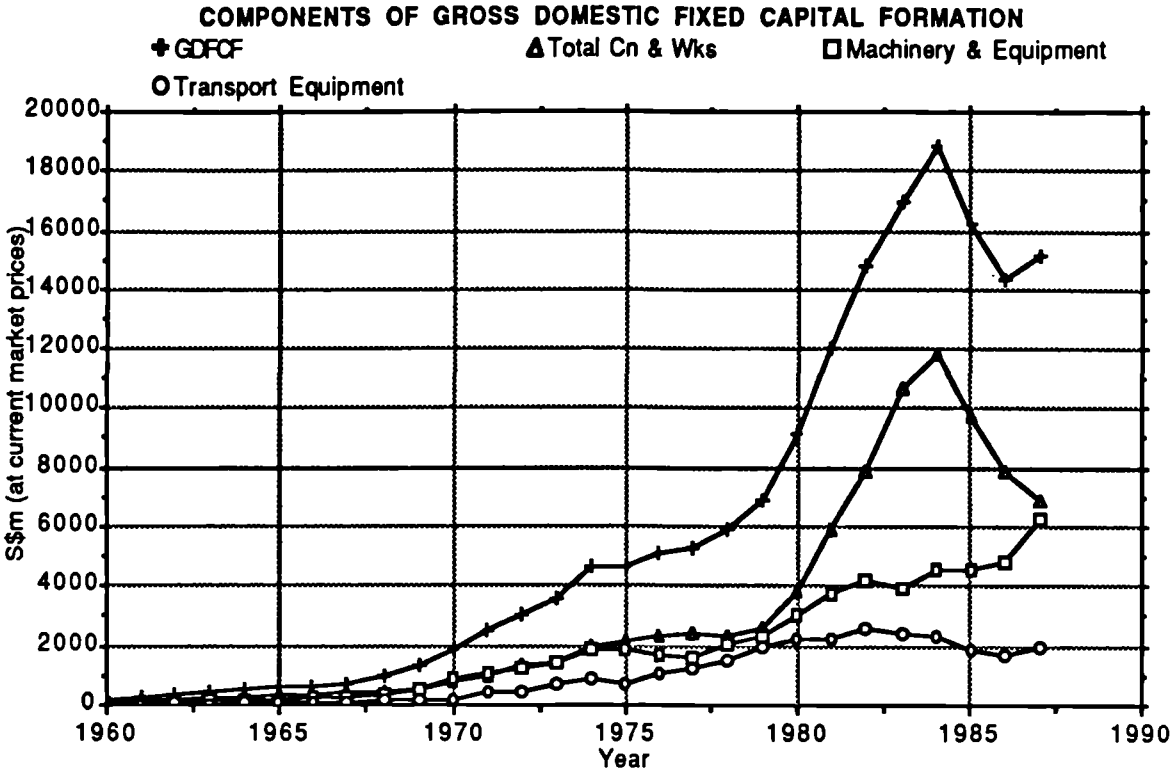



Source : Economic and Social Statistics of Singapore 1960-82; Department of Statistics, Singapore, 1983.
Yearbook of Statistics; Department of Statistics, Singapore; various issues.
The Straits Times Weekly Overseas Edition; 19 November 1988 and 7 January 1989.

FIGURE 12.5 : GROSS DOMESTIC PRODUCT, CAPITAL FORMATION IN CONSTRUCTION & WORKS, AND VALUE ADDED IN CONSTRUCTION IN THE SINGAPORE ECONOMY BETWEEN 1960 AND 1988 (AT CONSTANT 1968 MARKET PRICES)

total construction works. On the other hand, as a percentage of total construction, civil engineering works took up only a mere 19%. The range of these percentage shares are, in addition, likely to differ even more if one considers the trends in building and civil engineering works in the 1980s. As depicted in Figure 12.7, an upsurge can be noticeable for building works from 1980 to 1984. This contrasts sharply with civil engineering works where the volume increase in current market prices has been much more gradual. While the accelerated housing programmes of HDB in the early 1980s may have a large influence on this upsurge of building works (Table 12.2 shows that HDB has built some 200,377 units of housing between 1981 and 1985), speculative commercial, industrial and residential construction in the private sector have also caused this surge to climb even steeper. It would therefore be of interest to look at building works in greater details to determine the extent of the inputs from both the public and private sectors in so far as building construction is concerned.

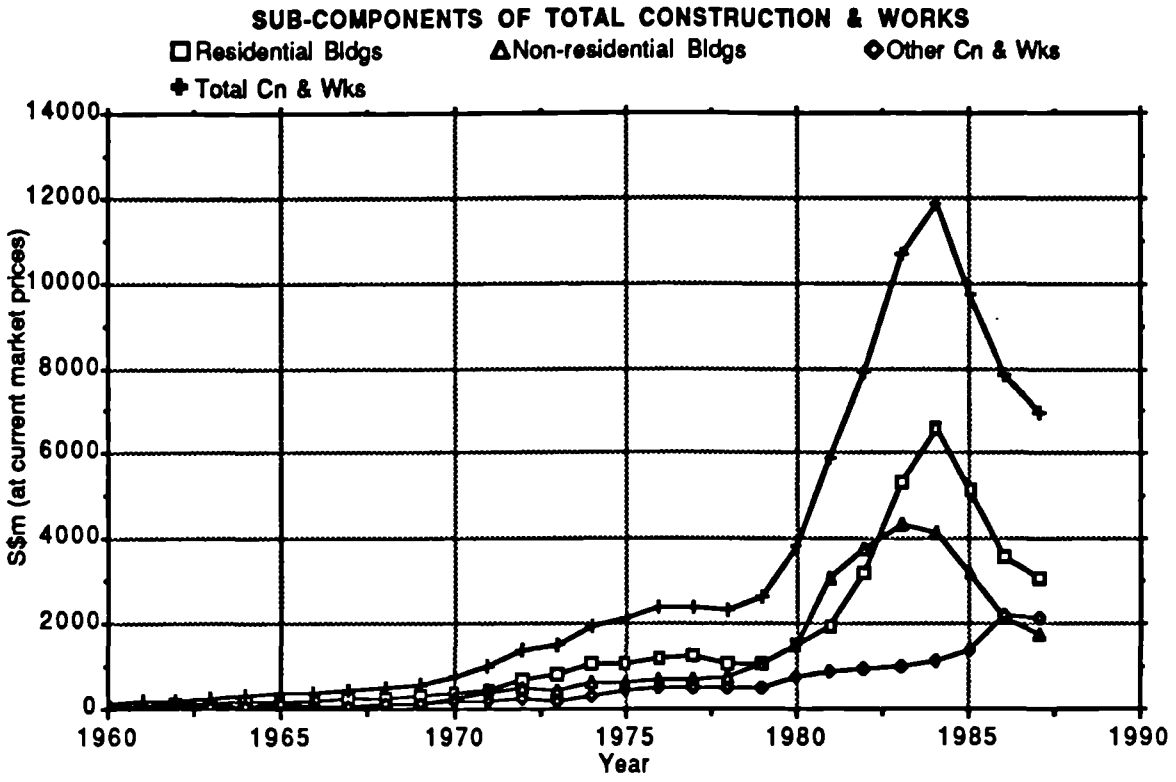
Figure 12.8 shows the value of building works commenced by both the public and




Source : Economic and Social Statistics of Singapore 1960-82; Department of Statistics, Singapore, 1983.
Economic Survey of Singapore; Ministry of Trade & Industry, Singapore; various issues.
Yearbook of Statistics; Department of Statistics, Singapore, 1987.

FIGURE 12.6 : MAIN COMPONENTS OF GDFCF - TOTAL CONSTRUCTION & WORKS, MACHINERY & EQUIPMENT, AND TRANSPORT EQUIPMENT BETWEEN 1960 AND 1987.

private sectors. It can be noticed that the building volume commenced in the private sector had risen faster than the public sector between 1980 and 1982. Thereafter, private sector commencement of building works experienced a drastically sharp fall until 1986 when it started to pick up again. A detailed examination of private and public sector building commencement in 1982 tends to suggest that the latter has buffered the sharp decline posed by the private sector. It can be seen that while the private sector took a sharp dip after 1982, the public sector appears to be trying to lessen the effects of the private sector's decline by prolonging its growth, albeit a gradual one, for another year until 1983. This seems to indirectly reflect governmental effort in pump-priming a fledgling industry. Since 1983, the value of public sector building commencement had, likewise, declined considerably. 1982 has been a bumper year in the Singapore construction industry since independence where the value of building commencement hit an extraordinary S$10b mark.

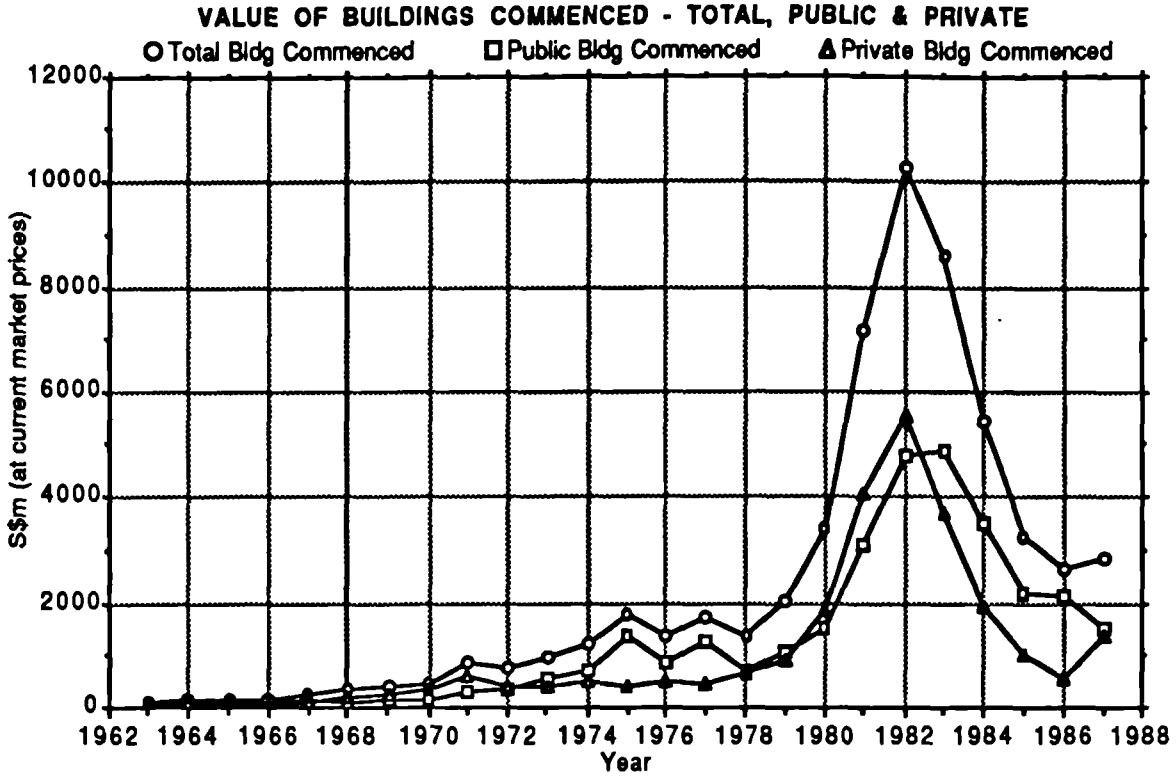



Source : Economic and Social Statistics of Singapore 1960-82; Department of Statistics, Singapore, 1983.
Economic Survey of Singapore; Ministry of Trade & Industry, Singapore; various issues.
Yearbook of Statistics; Department of Statistics, Singapore, 1987.

FIGURE 12.7 : RESIDENTIAL BUILDINGS, NON-RESIDENTIAL BUILDINGS, AND OTHER CONSTRUCTION AND WORKS IN GDFCF IN SINGAPORE BETWEEN 1960 AND 1987.

The value of building commencement, however, does not yet reflect the sentiments of construction firms within the industry. Because of its long gestation periods, projects which have just been started are likely to be perceived in a more favourable light in tiding firms over difficult times, at least, in the short term. Thus, in Singapore's case, although the total value of building commencement shown in Figure 12.8 had dropped very sharply in 1982, there appeared to be little concern there and then because sufficient works are still around to keep construction resources occupied. Contracts continued to be awarded although at a less intensive rate. It is only when a substantial amount of construction work has been completed and when the same resources are left idle that the industry then began to take stock of its plight. It would therefore be necessary to investigate the overall completion trends of building works in Singapore before the responses of local construction firms to the fall in workload in the industry can be placed in perspective.

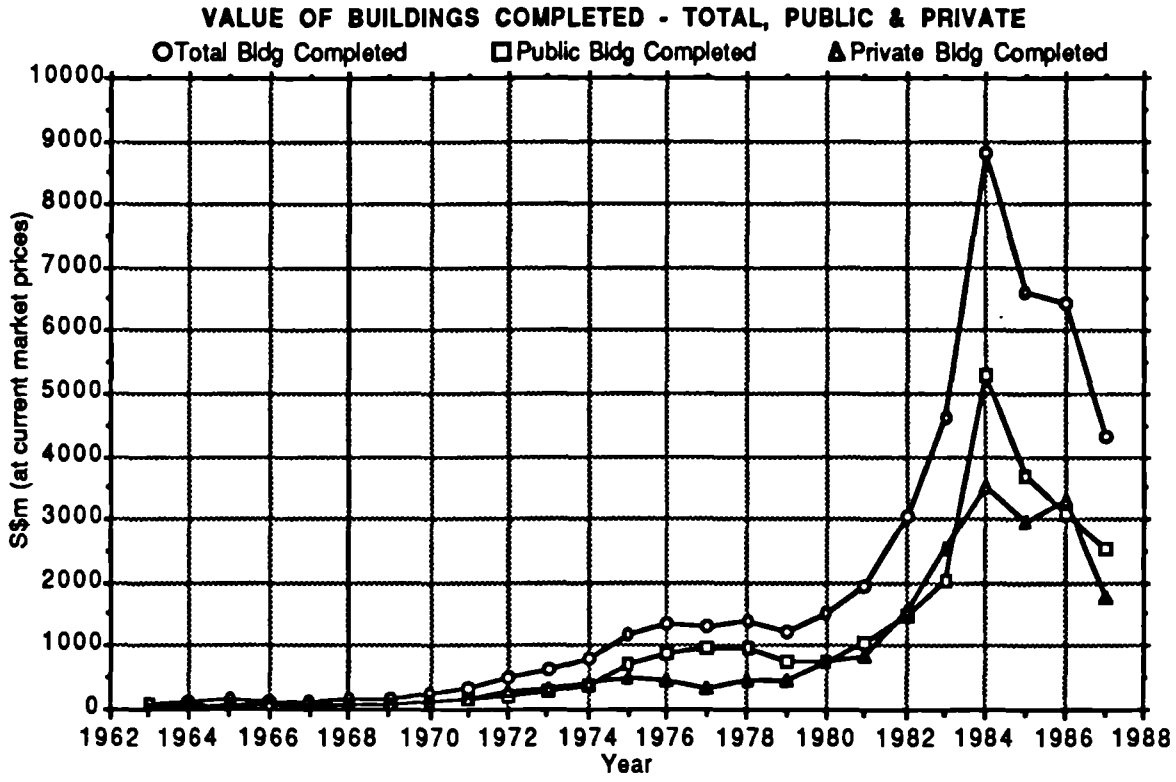
The rates of building completion in both the public and private sectors in Singapore between 1963 and 1987 are depicted in Figure 12.9. Although the trends in the 1980s as shown in Figure 12.9 are quite similar to those over the same period in Figure




Source : Economic and Social Statistics of Singapore 1960-82; Department of Statistics, Singapore, 1983.
Yearbook of Statistics; Department of Statistics, Singapore; various issues.
Yearbook of Building and Real Estate Statistics; Research and Statistics Unit, Ministry of National Development; various issues.

FIGURE 12.8 : VALUE OF BUILDINGS COMMENCED IN SINGAPORE BETWEEN 1963 AND 1987 - TOTAL, PUBLIC AND PRIVATE.

12.8, there has been a marked difference. While the peaked effect in Figure 12.8 has occurred in 1982, it did not arise in Figure 12.9 until 1984. The two years' lapse in time between building commencement (in Figure 12.8) and building completion (in Figure 12.9) appears to provide an indication of the gestation period one encounters in construction. From Figure 12.9, it can be conjectured that the industry's concern over its own well-being and resource utilisation could well have been intensified further in 1984 when the major bulk of the work had been completed. This, coupled with the decline of building commencement since 1982 in Figure 12.8, seems to have exacerbated the anxiety of the industry further. By now, it is increasingly clear that the construction industry in Singapore had been extraordinarily buoyant during the early 1980s. This is in sharp contrast to the gradual progress made in the 1960s and 1970s. The steep rise and sharp decline of both building commencement and completion in 1982 and 1984 respectively have provided some indications of the large volume of work undertaken in Singapore during this period. This phenomenon, it would appear, is however more of an exception rather than a norm



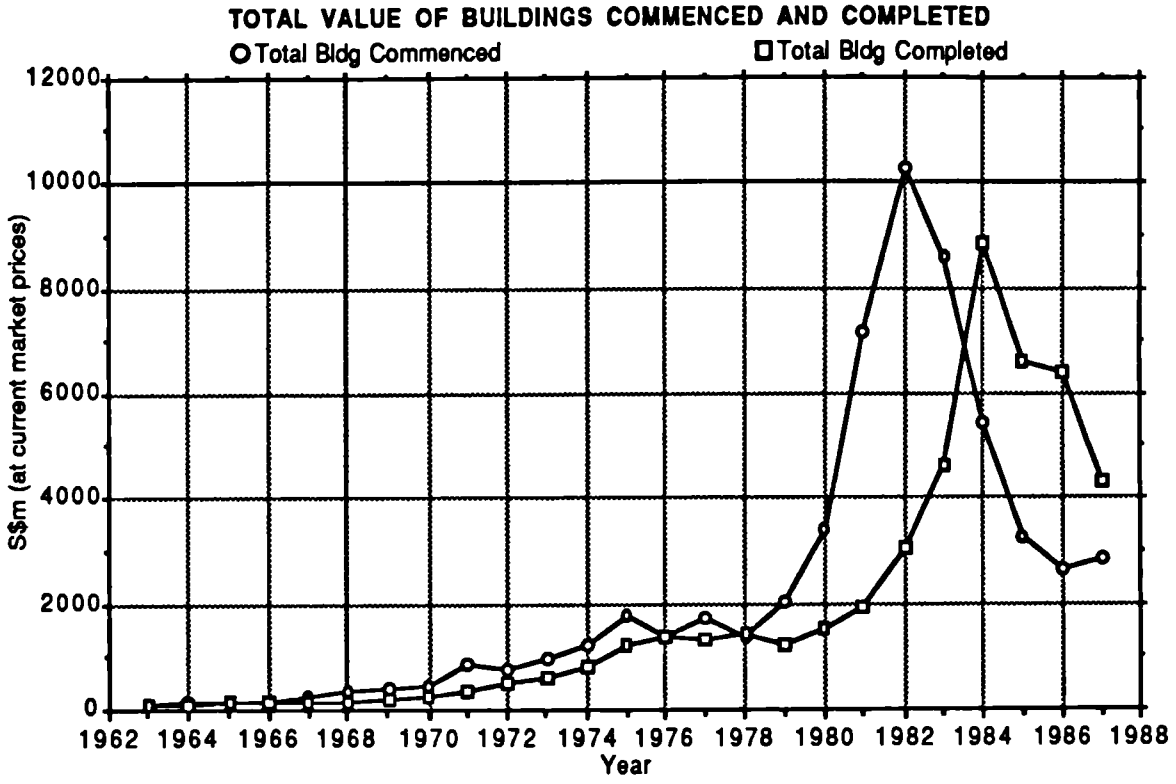

Source : Economic and Social Statistics of Singapore 1960-82; Department of Statistics, Singapore, 1983.
Yearbook of Statistics; Department of Statistics, Singapore; various issues.
Yearbook of Building and Real Estate Statistics; Research and Statistics Unit, Ministry of National Development ; various issues.

FIGURE 12.9 : VALUE OF BUILDINGS COMPLETED IN SINGAPORE BETWEEN 1963 AND 1987 - TOTAL, PUBLIC AND PRIVATE.

since independence. To understand the rationale behind the industry's concern which have been voiced persistently in recent years, it would be necessary to synthesize the rates of building commencement and completion in the 1980s. This synthesis is shown in Figure 12.10.

From Figure 12.10, it can be seen that the total value of buildings commenced peaked at a higher point than the total value of buildings completed. The steep rise in the total value of buildings completed between 1980 and 1984 gives an indication of the build-up in construction capacities accumulated by firms over a relatively short time period within the industry - apart from the enhanced efficiency which may have been derived from an increase in productivity and mechanisation. It would appear that the excess capacity created by the rapid build-up and decline in construction has prompted the indigeneous industry to consider, firstly, its position within the local construction market in relation to foreign firms in Singapore and, secondly, the possibility of expanding and diversifying its services overseas in the face of a dwindling domestic market. As a fledgling industry, the government was therefore expected to take a lead role in safeguarding its interests. To this end, an exhaustive

review of the literature which documented the developments in the Singapore construction industry has revealed an unprecedented flurry of dialogues between the government and organisations which represent the various indigeneous construction practices. Before exploring these dialogues in greater details later, it would be necessary to first look at the major problems which have plagued the construction industry in Singapore and the background preparation works which have been taken to ameliorate their effects.




Source : Economics and Social Statistics of Singapore 1960-82; Department of Statistics, Singapore, 1983.
Yearbook of Statistics; Department of Statistics, Singapore; various issues.
Yearbook of Building and Real Estate Statistics; Research and Statistics Unit, Ministry of National Development; various issues.

FIGURE 12.10 : TOTAL VALUE OF BUILDINGS COMMENCED AND COMPLETED IN SINGAPORE BETWEEN 1963 AND 1987.

## 12.6. MAJOR CONSTRUCTION PROBLEMS AND CORRECTIVE MEASURES TAKEN BY THE SINGAPORE GOVERNMENT

As a result of her small population base and the reluctance of many Singaporeans to take up employment in the construction industry, manpower shortages have persistently remained an issue of much concern in Singapore during the boom years. As a result of the unwillingness of local firms to invest in capital-intensive plant and equipment, the Information Division (1984) suggests that four

inter-related problems were perpetuated :

1. Heavy reliance on foreign workers.
2. Low productivity.
3. Poor labour organisation; and
4. Labour-intensive construction operations.

Although the use of foreign labour has been permitted by the government as a stop-gap measure to the acute shortfall in manpower requirements, and as a buffer in the event of an economic recession, this invariably brings along with it various social, economic and political problems. The authorities in Singapore have overtly recognised these problems and, as a result, various schemes were accordingly introduced over the years to at least alleviate the strong reliance on foreign labour, and at the same time, provide a platform for upgrading the construction industry.

12.6.1. THE PUSH TOWARDS MECHANISATION

Although the first tower crane was used in Singapore way back in 1962[21], mechanisation has, nonetheless, been consistently accorded a low priority by the private sector of the economy - not at least until the official encouragement given by the government. In their review of construction techniques and mechanisation in Singapore, Lim, Lim and Smith (1984) have concurred that Singaporean building contractors have been relatively slow in mechanising their operations. They argued that with a cost proportion of labour : materials in the region of some 3 : 7, building contractors are therefore tempted to place more emphasis on saving material rather than labour costs. This has consequently hindered the vigorous adoption of labour-saving devices and the purchase of new plant and equipment.

By the time the industry entered into the buoyant years of the early 1980s, the failure of the industry to mechanise its operations enthusiastically had already reached crisis proportions. It appears that this scenario has provided the requisite setting for the government to rectify these shortcomings. In September 1981, the Ministry of National Development (MND) introduced two incentive schemes to both promote mechanisation and increase productivity in the construction industry. These are, firstly, the Accelerated Depreciation Allowance Scheme which enables firms to write off their equipment over three years instead of the then six years and, secondly, the Cheap Loan Financing Scheme which assists contractors in making purchases of plant and machinery at a lower interest rate[22]. By 1985, there were a series of other incentive schemes in existence for the construction industry. The Investment Allowance Scheme, both administered and authorised by the Construction Industry Development Board (CIDB), purports to accelerate the pace of mechanisation in the construction industry[23]. Another scheme, the Interest Grant for Mechanisation (IGM) Scheme, administered by the EDB, seeks to encourage and assist companies and firms in Singapore to mechanise their existing manual operations or

re-equip with new machinery and equipment[24]. Invariably, these schemes seek to achieve a reduction in labour content and an increase or introduction of both sophisticated and skilled operations. Because out-of-date plant and machinery both inhibit productivity and the introduction of the most up-to-date techniques, the government has likewise been vocal in discouraging the purchase of second-hand and old equipment by Singaporean contractors.

12.6.2. THE PREFERENTIAL MARGIN SCHEME

One particular scheme which merits separate mention is the Preferential Margin Scheme. Started in May 1980, the scheme was intended to buffer local contractors from the onslaught of foreign construction giants in public sector projects in Singapore. At the same time, the scheme also encourages joint ventures between local and foreign contractors in order to facilitate the transfer of technology, particularly in areas of specialisation where local contractors lack the experience and expertise. This has the effect of allowing local track record to be built up for future projects overseas which are likely to be of the same order of complexity and magnitude.

Under the scheme, only foreign - local joint ventures with at least 25% net local equity participation are eligible for consideration. Depending on the percentage of net local equity participation, a preferential margin of up to S$5m may be allowed for tenders submitted for public sector contracts. Following a revision in 1983 to account for the large contract sums involved in Mass Rapid Transit (MRT) projects, the preferential margins in relation to the net local equity participation are as follows :

| Net Local Equity Participation | Preferential Margin |
|---|---|
| 50% or more | 5% subject to a maximum of S$5m |
| 40% or more but less than 50% | 4% subject to a maximum of S$4m |
| 30% or more but less than 40% | 3% subject to a maximum of S$3m |
| 25% or more but less than 30% | 2.5% subject to a maximum of S$2.5m |
| Less than 25% | No preference |

The Preferential Margin Scheme is currently administered by the CIDB although approval remains vested in the public authority calling the tender.

12.6.3. HDB's ROLE

Following the announcement of its ambitious public housing programme since 1960, the HDB has become one of the largest building employers in Singapore. As a result of its demand-generating position, considerable influence was spontaneously accorded to the Board in its day-to-day operations, particularly in the exercise of prequalifying contractors for its building contracts. Much of what the government had in store for upgrading the construction industry, inevitably, wound its way into the policies of HDB. As the major statutory board responsible for the award of attractive large-scale housing contracts to the private sector, HDB is therefore

well-placed to play a key role in overhauling the industrial base of the local construction industry. In the process, the industry can be provided with a respectable track record for overseas markets should the need arises one day in the future. It would appear that the various schemes under the aegis of the HDB seek eventually to serve this objective.

Under the Free Financing Scheme, a loan of up to $^1/_{15}$ of the total value of the contractor's projects would be granted by HDB to the contractor for the purchase of plant and equipment which can lead to an improvement in labour utilisation. Operating along the lines of a hire-purchase scheme, payment is then made by the contractor to HDB at source every month. Until complete repayment had been made, the purchased item remains vested in HDB. In 1973, a Merit Star Scheme was started. Working along the somewhat similar principles as the Preferential Margin Scheme dealt with earlier and depending on their work performance, HDB contractors are awarded "merit stars" on the recommendation of HDB's officers. Each star entitles the recipient contractor a 0.5% preference in his bid for future HDB projects. A "five-stars" contractor would, therefore, be eligible for a 2.5% bidding preference. In this manner, HDB contractors are consistently encouraged and rewarded for enhanced efficiency and quality of workmanship. A further development of the Merit Star Scheme in 1982 gave rise to the HDB Core Contractors Scheme. Under this scheme, contractors who have three or more stars and with a minimum paid-up capital of S$0.5m are selected to join the Core Contractors Group. Members of the Group are then guaranteed a minimum level of workload over a period of time. In the first year of its operation (i.e. 1982), a minimum of 1,000 units per annum over a three years' period were awarded to each of the 16 core contractors. In all, this accounts for some 45% of all HDB contracts for that year. By availing a minimum stable workload for the core contractors, HDB has provided the impetus for some of the major local contractors to upgrade their operations further. This also marked the initiation of the HDB mechanisation programme in 1982 to increase labour productivity and reduce reliance on foreign labour in HDB projects[25]. However, following the overbuilt situation in the mid-1980s, the Core Contractors Scheme seems to have passed into oblivion.

It was not until 1988 that the HDB started a new Serial Contract Scheme which "combines" three projects under one tender. Under this scheme, successful bidders are assured of a S$45m to S$50m contract consisting of three building projects at any one time. Applicable only for local firms, each new serial contract will take about 40 months to complete. After a tender has been awarded, the contractor needs only to start work at one of the three sites. The remaining two sites will be handed over by HDB at intervals of some six to nine months. As a step closer to marketing Singapore construction services abroad, the professed intention of HDB in the Serial Contract Scheme is to help local contractors upgrade and export overseas[26].

12.6.4. MANPOWER SHORTAGES

Labour shortages in the Singapore construction industry has always been a major recurrent problem. While the shortfall in the 1960s and 1970s may be made good occasionally by an influx of construction workers from the slack industry of neighbouring Malaysia, the boom years of the 1980s in both Singapore and Malaysia have created an extremely tight labour market. For the first time in 1980, the local construction industry has to resort to recruiting workers from the non-traditional sources such as South Korea and the Philippines[27]. Lim (1980) describes the then labour situation in the Singapore construction industry as dismal, with more than 75% of the workforce being foreign labour with no formal training nor modes of establishing their levels of competency and skills. The position was such that anybody who was prepared to work, got a job. In view of the undesirable socio-political problems of foreign workers, the government was prompted to announce the setting up of a centre solely for training construction workers and to phase out all foreign labour by 1992. In addition, while the government relented in reclassifying workers from Hong Kong, Macau, Taiwan and South Korea as traditional sources in February 1984, Foreign Worker Levies have continued to be imposed to discourage construction firms from indiscriminate employment of foreign labour from non-traditional sources at the expense of upgrading their operations.

In 1981, the Construction Brigade Scheme was implemented to introduce civil defence skills and construction trades to some national servicemen. After a revision of the scheme in 1985, conscripts taken into the Construction Brigade are required to undergo three months of basic paramilitary training followed by a one-to-six months training stint at the Construction Industry Training Centre (CITC) which had been set up in 1983. Upon completion of their training courses, they were then sent to work on HDB sites for the remaining period of their two-years full-time national service[28]. The rationale behind this scheme is mainly two-fold. Firstly, it professes to reduce the critical labour shortage in the construction industry, albeit in a somewhat limited way. Secondly, it provides an opportunity to introduce construction trades to lowly-educated young men and in the process, helps them to adapt better in the construction industry should they choose to make a future career out of their training in the structural and finishing trades[29].

12.6.5. RATIONALISATION AND THE MOVE TOWARDS EXPORTS

It would appear that the various schemes implemented by the government are not without a more supreme purpose. While rationalisation within the industry, at first sight, would seem to concern itself only with the more immediate issues, a longer term perspective would however reveal a further coalescing effect. In the case of the construction industry in Singapore, one may argue that the thought of exporting a package of construction services to other countries would probably be untenable

unless its own house is first put in order. From the numerous approaches adopted by the government thus far in resolving problems in the construction industry, it would appear that this is precisely the direction the government intends to go. Back-up facilities and support are all essential in the move towards exports.

In the light of an impending massive construction programme in the 1980s, Lim (1980) had suggested the need to set up a Task Force to study the problems of the industry. Likewise, in response to a call in 1981 by the then Minister for National Development to change its image, the Singapore Contractors Association Limited (SCAL) has also suggested the establishment of a high-level joint construction authority to steer the local building industry to international standards[30]. These suggestions, it would seem, apparently went unheeded during the boom times of the early 1980s. Nevertheless, this prelude has set the scene for a much needed central authority. It was not until 1984 when the buoyant construction market started to contract severely that the CIDB was constituted by Parliament as an agency responsible for planning and overseeing the development of the construction industry[31].

Besides the various incentive and loan schemes mentioned earlier, several other schemes were also made available for the purpose of upgrading the construction industry. These, however, tend to be more general in nature and may similarly be of benefit for other industries. The Small Industries Finance Scheme under the EDB provides financial assistance to small but, nonetheless, viable enterprises in their operations. This enables small local firms to upgrade and expand their operations. The Extended Small Industries Finance Scheme, likewise, caters for the medium-sized industries with fixed production assets of between S$3m to S$8m. The Training Grant Scheme under the Skills Development Fund Secretariat (within the EDB) seeks to encourage employers to undertake structured training programmes which will upgrade their employees' skills. The SCAL has, for example, made use of the SDF facilities to defray the costs of setting up an industry-based technical and management training centre in 1983. For the purpose of the construction industry, the Training Grant Scheme is administered by the CIDB. Two other schemes under the EDB which may be of some relevance to the construction industry are :

1. The Development Consultancy Scheme which sets out to encourage and assist local companies registered in Singapore to seek external expertise for the purpose of upgrading their business operations and training plans; and
2. The Initiatives in New Technologies Scheme which aims to encourage and expedite investments in the field of new technologies by providing training and start-up assistance.

While these incentive and loan schemes may be helpful to the local construction industry in their pursuit of rationalisation, their benefits have not yet been able to

fend the indigeneous construction firms from the highly competitive foreign giants. An inability to secure the larger domestic contracts would mean that the opportunities for gaining a good track record would be lost to the Singaporean construction firms. In this respect, the local construction industry has, in 1987, urged the government to give them more help in building up their track record necessary for overseas jobs[32]. As spokesman for the industry, the SCAL has proposed three suggestions for public sector contracts to the government :

1. Breaking up the larger contracts into smaller packages of below S$50m so that local contractors can readily procure the financing required for such jobs. (The Association has, in the mean time, set up a Committee of Financial Specialists to work out attractive financial packages).
2. Encourage the use of more local instead of imported materials and components. (The rationale appears to be that local construction firms would find it increasingly difficult to compete with foreign contractors in so far as imported makes are concerned); and
3. Encourage the use of local consulting engineers and architects who can then reciprocate by providing back-up services for overseas jobs.

As another self-help measure, the SCAL has also proposed to set up a new Overseas Marketing Committee.

The suggestions raised by the SCAL are, however, not entirely new issues. As far back as 1984, the CIDB has already responded by setting up a high-powered committee to examine the ways in which benefits from joint ventures with foreign firms may be optimised[33]. Technology transfer in this case is, however, not wanted for its own sake but rather for the following developments :

1. An opportunity to first master the expertise so that the recipient country can, in due course of time, conserve foreign exchange by executing similar works in the future herself; and
2. The same recipient country can then in turn earn foreign exchange by exporting the mastered expertise overseas to a third country.

As far as the industry is concerned, at the time when CIDB was first constituted, local firms would already have found it difficult to compete on technological grounds with their highly sophisticated foreign counterparts. The initial preoccupation of CIDB, immediately upon its inception, would naturally be directed towards improving the technical base of local firms. It would therefore be relatively easy to understand why CIDB, in conjunction with the Public Works Department (PWD), has almost immediately embarked upon a substantial package of prefabricated construction for the schools building programme in March 1984.

Loh (1985a), writing on behalf of the CIDB, suggests that the export effort by any construction industry, including Singapore's, can only be sustained if :

1. A critical volume of work for local construction firms can be maintained.
2. The value added per output in the construction sector is higher than those found

in the manufacturing sector.

3. The exports have a potential to yield substantial foreign exchange earnings; and
4. Construction remains to provide a substantial growth stimulus for the economy.

In the case of Singapore, the difficulties in exporting construction services are however complicated further by several factors. Loh (1985a) considers the followings to be the more pressing problems when local firms attempt to market their services abroad :

1. Their lack of a convincing track record.
2. The intense competition faced in the international market.
3. A general lack of specialist knowledge in financial engineering and an inability to provide innovative and attractive financial package to overseas clients.
4. An unwillingness on the part of local financial institutions to partake in competitive project financing and in providing other loan arrangements to local contractors.
5. The difficulties in remitting funds back to Singapore, particularly from countries which do not yet have double taxation treaties with Singapore; and
6. The lack of an efficient intelligence gathering network and a comprehensive international marketing information system.

It would appear that the issues raised by Loh (1985a) have still remained somewhat similar to the hurdles already faced by engineering consultancy firms a decade ago. A questionnaire survey conducted by the Ministry of Science and Technology in 1975 revealed the results shown in Table 12.3 and Table 12.4 here[34].

Although the results of this 1975 survey have been drawn from consultancy firms, it appears that the types of problems which they faced and the assistance which they desired are not substantially different in a significant way from those faced by the contractors. The utility of this survey, however, seems to has been neglected by policy-makers in the construction industry. An exhaustive search and review of the literature relating to the export of services by the Singapore construction industry post-1975 have yet to reveal any acknowledgement of the utility of this survey undertaken by the Ministry of Science and Technology.

## 12.7. DEBATE ON THE OPEN-DOOR POLICY

The relative ease of foreign firms in gaining access into the construction market of Singapore and the intense competition created as a result, has raised considerable sentiments from local firms. The open-door policy pursued by the Singapore government has given rise to the following contentious issues and developments : protectionism, international / regional co-operation, foreign / local market share, liquidation in the local construction industry, reactions from the local contracting industry, contractors-government dialogues, and consultants-government dialogues. These issues will be examined in greater details below.

| Type of problem | Percent of establishments facing problems |
|---|---|
| 1. Lack of contact with prospective clients | 72 |
| 2. Lack of advance information on projects | 65 |
| 3. Lack of funds | 50 |
| 4. Lack of expertise | 39 |
| 5. Inadequate knowledge of trading conditions in host countries | 39 |
| 6. Language differences | 39 |
| 7. Lack of legal knowledge of host countries | 37 |

Source : Report on the 1975 Survey of Engineering Consultancy Services in Singapore; Ministry of Science and Technology, Singapore, 1976, Table 4.

TABLE 12.3 : IDENTIFICATION OF PROBLEMS FACED BY ESTABLISHMENTS IN SECURING PROJECTS TO BE UNDERTAKEN OUTSIDE SINGAPORE

| Type of assistance | Percent of establishments who would find the assistance useful |
|---|---|
| 1. Collection & dissemination of relevant trade information to consultancy associations | 60 |
| 2. Availabilty of Government Export Credit facilities for consultancy services | 60 |
| 3. Provision of government financial assistance in the forms of loans / funds | 58 |
| 4. Fiscal incentives | 58 |
| 5. Upgrading of local expertise | 54 |
| 6. Conclusion of double taxation agreements with trading countries | 49 |
| 7. Greater government representation at sources of international finance | 46 |
| 8. Maintenance of trade service representatives in various overseas countries | 43 |

Source : Report on the 1975 Survey of Engineering Consultancy Services in Singapore; Ministry of Science and Technology, Singapore, 1976, Table 5.

TABLE 12.4 : ASSISTANCE WHICH ESTABLISHMENTS WOULD FIND USEFUL IN PROMOTING THE EXPORT OF CONSULTANCY SERVICES

12.7.1. PROTECTIONISM

The imbalance of trade and an inability of the locals to compete with foreign firms in the domestic market, among others, appear to be the main factors in provoking protectionist sentiments from the local industry. Cateora (1983), for instance, seems to refer to protectionism as an inevitable obstacle in international marketing. Cateora (1983) had suggested a variety of reasons as to why protectionism has been resorted to by some countries. These include :

1. Protection of an infant industry.
2. Protection of the home market.
3. The need to conserve foreign exchange.
4. The encouragement of capital accumulation.
5. The need to maintain standards of living and real wages.
6. The need to conserve natural resources.
7. Industrialisation of a low-wage / underdeveloped country.
8. The need to upkeep employment and reduce unemployment.
9. National defence.
10. Increase of indigeneous business size, and
11. Retaliation and bargaining.

Cateora (1983) appears to see some validity in so far as items (1), (7) and (9) are concerned. Hui (1973), likewise, accepts that the potential conflicts between exporters and host countries are likely to be inevitable once the delicate balance in trading conditions is disturbed. In what has been termed megamarketing, Kotler (1986) suggests that successful marketing has increasingly become a political exercise. As such, there are essentially two ways in which firms can compete in the world markets - the hard way through quality and innovation, or the easy way through unprofitable concessions. Kotler (1986) continues on to observe that

> "As they mature, markets acquire a fixed set of suppliers, competitors, distributors, and customers. These players develop a vested interest in preserving the market's closed system and seek to protect it against intruders. They are often supported by government regulatory agencies, labour unions, banks, and other institutions. They may erect visible and invisible barriers to entry : taxes, tariffs, quotas, and compliance requirement (Kotler, 1986:118)".

The open-door policy of the Singapore market economy has, time and again, been emphasized continuously by the government. In his speech to a joint meeting of the United States' House of Representatives and the Senate in Washington in October 1985, the Singapore Premier has pleaded emphatically for the cause of free trade[35]. During his visit to South Korea in June 1986, the Premier again called upon countries to open up their markets if protectionist sentiments from the developed countries

are not to be aroused[36]. And yet again in October 1988, in his opening address at a conference aimed at finding out the current thinkings of multinational corporations and how Singapore can play a more prominent role in their strategies, the Prime Minister has stressed the need for an open world market and the lessening of trade barriers in the United States, Europe, Japan and the NICs[37]. All these, in essence, summed up succinctly the government's position in pledging free trade and in promoting international trade in Singapore. This formidable exhortation, it would however appear, has not been rigorously applied nor adopted by the local construction industry in their pleas to the government to buffer them from foreign competition via protectionist means. The measures proposed by the industry in this direction will be dealt with in greater details below.

12.7.2. INTERNATIONAL / REGIONAL CO-OPERATION

The International Federation of Asian and Western Pacific Contractors' Association (IFAWPCA), founded in 1956, represents the interests of contractors' associations within the Asia-Pacific region. The SCAL, along with more than ten other contractors' associations from the region, are all members of IFAWPCA[38]. One of the main objectives of IFAWPCA is to bring about closer contact, international fellowship and co-operation among contractors in Asia and the Western Pacific region. Subject to appropriate regulatory measures which are compatible with the national development objectives of the host country concerned, IFAWPCA generally subscribes to the liberal principle of free enterprise for the international exchange of services. IFAWPCA is therefore adverse to practices which interpret free enterprise as a license to pursue economic activities without any due consideration for the growth of developing host economies. The World Bank and the Asian Development Bank (ADB) have both appeared to support IFAWPCA's stance. Two of the recommendations tabled by IFAWPCA to the World Bank and the ADB have received favourable responses. These sought to :

1. Encourage foreign contractors to enter into joint ventures with host contractors so that the necessary technology transfer may be facilitated; and
2. Encourage the development and expertise of local contractors by providing for preferential margins in their bids for smaller contracts below US$10m[39].

In May 1983, Officials from IFAWPCA visited the SCAL to discuss the formation of the Asean Constructors Federation (ACF). Two years later, in May 1985, the ACF was officially inaugurated in Jakarta. The inaugurated objectives of the ACF are :

1. To provide a forum for dialogues among the construction contractors in the Asean region for the purpose of evolving a collective and more effective role for the construction industry in the economic development of the Asean region.
2. To foster closer co-operation among the construction contractors in the Asean region by promoting joint ventures and joint operations for enhancement of

their construction contracting capabilities through complementation and / or supplementation.

3. To promote mutual consultation among construction contractors in the Asean region by encouraging the exchange of information and know-how for improvement of construction technology and management, upgrading of construction labour skills and standards, and ultimately, achieving rapid advancement of the construction industry in the Asean region; and
4. To unify efforts of the construction contractors in the Asean region with a will to promote export of construction services to countries outside of the Asean region, and to pool resources, if necessary or desirable, to attain the goal[40].

A proposed Preferential Shortlisting of Asean Contractors Scheme was subsequently tabled by the ACF for discussions at the 17th Meeting of the Asean Economic Ministers in May 1985. This was then tabled for approval in February 1986 at the Asean Foreign Ministers' Meeting. At the Asean Ministerial Meeting in Jakarta in October 1986, the ACF's Preferential Scheme for Asean contractors was accepted and signed[41]. In their proposals first drawn up in 1985, the ACF urged the governments in the region to give more jobs to Asean firms. The three main proposals were :

1. Asean governments to give preference to Asean contractors when they draw up their shortlist of bidders to be considered for a project.
2. At least one Asean bidder to be included if a further shortlist is drawn up for projects funded by international institutions such as the World Bank who requires international competitive bidding; and
3. Government to seek approval in directing internationally-funded projects into three categories, with bidding open either to local, regional or international contractors depending on the category[42].

The Preferential Shortlisting Scheme, however, does not apply to projects covered by policies which favour domestic contractors. This can be seen in the case of Malaysia, a member country of Asean. In July 1986, the Malaysian Finance Minister announced that only local Malaysian contractors would be offered building projects and tenders of less than M$50m[43].

The position in Singapore is, however, somewhat different. In January 1985, the SCAL appealed to the Singapore government through the CIDB to reserve jobs of up to S$20m for Singaporean contractors. This request was turned down as the government maintained that its policy was to award contracts to the most competitive bidders[44]. Again, in August 1985, the SCAL lobbied the newly established Economic Committee for a "fairer" share of the public sector contracts brought forward by the government to help tide the industry over the then economic slowdown[45]. Indications from the Report published by the Economic Committee (1986), however, revealed that the government has no intention of nurturing the fledgling industry through protectionist means.

## 12.7.3. FOREIGN-LOCAL MARKET SHARE

The domination by foreign contractors of the more sophisticated and massive projects in Singapore has appeared to be a constant source of irritation to the local construction industry - particularly in the period before the mid-1980s when the construction market first begun its pronounced decline. While some of the foreign firms may have justifiably flexed their competitive edge through their more attractive financing and technological capabilities, their prominent domination has nonetheless provoked an outcry from their local counterparts. Tan's (1985a) study of the construction industry in Singapore has shown a preponderant presence of foreign firms in the up-scale market of construction projects awarded, including a majority of those which involved several hundred millions dollars.

Table 12.1, shown earlier in this Chapter, provides a succinct picture of the concentration foreign firms have in the industry as at 31 March 1985. As depicted in Table 12.1, the number of foreign firms who are able to execute contracts above S$10m have outnumbered the locals in all the five categories considered. This undeniably reflects the dominance of foreign contractors in the larger projects. As the Economic Committee (1986) has reported, Singaporean contractors have a higher tendency to work in the lower cost public sector construction market where capital requirements are much less demanding. Table 12.5 shows this phenomenon clearly. Between 1982 and 1985, local contractors have secured over 90% of public sector contracts of S$20m and less. The majority of the contracts above S$20m were awarded to joint ventures and foreign contractors.

| | Building Works | | Civil Engineering Works | |
|---|---|---|---|---|
| | S$20m & below | Above S$20m | S$20m & below | Above S$20m |
| Local | 95 | - | 97 | 5 |
| Joint Ventures | - | 61 | - | 45 |
| Foreign | 5 | 39 | 3 | 50 |
| Total | 100 | 100 | 100 | 100 |

Source : The Singapore Economy : New Directions; Report of the Economic Committee, Ministry of Trade & Industry, Singapore, February 1986, p. 200.

TABLE 12.5 : PERCENT COMPOSITION OF PUBLIC SECTOR CONTRACTS AWARDED BETWEEN 1982 AND 1985

The number of projects undertaken by local and foreign firms between 1982 and 1985 has also been analysed by Lim and Ong (1985), the results are shown in Table 12.6.

| S$ million | Local firms | Foreign firms |
|---|---|---|
| 1-10 | 23 | 10 |
| 10-20 | 33 | 9 |
| 20-30 | 10 | 7 |
| 30-40 | 1 | 9 |
| 40-50 | 4 | 3 |
| 50-60 | 2 | 5 |
| 60-70 | 2 | 5 |
| 70-80 | 2 | 6 |
| 80-90 | 0 | 5 |
| 90-100 | 0 | 1 |
| 100-200 | 2 | 7 |
| 200-300 | 0 | 2 |
| 300-400 | 0 | 2 |
| 400-500 | 0 | 0 |
| 500-600 | 0 | 1 |
| 600-700 | 0 | 2 |
| No. of firms | 79 | 74 |
| Value of contracts | S$1.734 billion | S$6.263 billion |

Source : Lim C. and Ong N.P.; "Report on Singapore Construction Industry : A case for support of local firms"; unpublished report commissioned by the Singapore Contractors Association Ltd., November 1985.

TABLE 12.6 : NUMBER OF PROJECTS / VALUE OF CONTRACTS UNDERTAKEN BY LOCAL AND FOREIGN FIRMS BETWEEN 1982 AND 1985

Over the time period considered, a total of 79 projects were awarded to local firms compared to the 74 which went to foreign firms. Yet the total value of contracts awarded were S$1.734 billion and S$6.263 billion respectively - a ratio of almost 1 : 4. The SCAL has noted that more than half of the public sector civil contracts in 1984 were clinched by foreign contractors. Statistics compiled by the SCAL showed that foreign firms have secured some 43.4% of the S$1.858 billion worth of contracts awarded. This is not in addition to at least another half of the 23% secured under joint ventures. Only 33.6% of the total contract value was awarded to wholly Singaporean firms[46]. As a result, the SCAL argued that complete openness in all business activities under the open-door policy may not always be to the advantage of Singapore and that construction is a domestic example of an economic sector which has been badly hit by fierce foreign competition. There is therefore, SCAL reasoned, an urgent need to reassess Singapore's economic priorities[47].

It would seem that Singaporean firms, on their own, have traditionally fared badly in civil works contracts. The mammoth MRT project started in the early 1980s is a good case in point. By the time the last MRT civil and structural contract was awarded in December 1986, some S$2.506 billion worth of contracts have been handed out. The

breakdown of these contracts by nationalities is as follows :

| | |
|---|---|
| Singaporean-Foreign Joint Ventures | : 77% |
| Wholly-Japan | : 14.2% |
| Wholly-France | : 3.7% |
| Wholly- Hong Kong | : 3.7% |
| Wholly-Singaporean | : 1.4% |

On their own, Singaporean firms were only able to win S$34.7m worth of contracts or 1.4% of the total contracts awarded. In their joint ventures with foreign contractors, Singaporean firms were, however, able to clinch a substantial portion of the work. Nonetheless, this success could have been attributed in no small way to the preferential margins reserved for approved joint ventures between Singaporean and foreign firms[48]. On the contrary, local contractors have fared reasonably well in building works. In an analysis of the contractors' shares of building jobs in Singapore in 1984, Seah (1985) has reported that a major bulk of the work was clinched by local contractors. As shown in Table 12.7, local contractors have secured a total share of 73% in 1984. Foreign contractors, on the other hand, managed to clinch only 27% of the total building contract value in the same period.

12.7.4. AN OUTBREAK OF LIQUIDATION

While local firms in Singapore may have fared relatively well in building projects, the severe economic downturn of the mid-1980s nevertheless appeared to have taken its toil on the construction industry. Singh (1985) reported that more than 15 local medium-sized construction firms have gone into receivership in the first few months of 1985 alone and that more than 30 others are expected to face a similar fate eventually in that same year. Singh (1985) has suggested several reasons which are thought to have led to this situation - the credit squeeze by banks, larger size firms elbowing in for the smaller projects and the sudden drop in the award of new contracts. This appears to has reached a crisis-level in the mid-1980s when two well-known building and civil engineering firms, Civilbuild Construction Pte. Ltd. and Active Building and Civil Construction, were wound up. Much interest and concern were generated in the case of Active Building and Civil Construction because just prior to its receivership, it has been officially ranked seventh in a list of "Top 20 Local Construction Companies" compiled by the CIDB for 1984[49].

Although it appears that the economic restraints and intense foreign competition may have contributed to the woes of some of these firms forced into liquidation, a possibility still remains that their ills could also have been attributed to cash-flow problems and internal structural difficulties. Nonetheless, a succession of firms placed into receivership seems to have provided the industry with a strong argument to register their valid protests against foreign competition.

| Nationalities | Value (S$m) | Percentage share |
|---|---|---|
| Japan | 1439.0 | 18.86 |
| Britain | 364.1 | 4.77 |
| West Germany | 83.7 | 1.10 |
| South Korea | 63.1 | 0.83 |
| France | 55.7 | 0.73 |
| Taiwan | 23.4 | 0.31 |
| Hong Kong | 10.9 | 0.14 |
| Holland | 7.5 | 0.10 |
| Sabah | 6.8 | 0.09 |
| Australia | 5.9 | 0.08 |
| Singapore | 5570.0 | 73.00 |
| Total | 7630.1 | 100.00 ** |

Foreign contractors' total share = 27%
Local contractors' total share = 73%

Source : Seah, R.; "Local contractors rule supreme"; Business Times (Singapore), 1 November 1985. (** may not sum up to 100 because of rounding-up discrepancies).

TABLE 12.7 : CONTRACTORS' SHARES OF BUILDING JOBS IN SINGAPORE IN 1984 - BY NATIONALITIES

In February 1987, Oh Teck Thye, another medium-sized piling and civil engineering contractor in operation since 1972, went into liquidation. As Raj (1987) has reported, this marked another victim of the construction slump after it failed to repay a S$3m debt secured from the banking institution.

12.7.5. REACTIONS FROM SINGAPOREAN CONTRACTORS

During the boom years, the attitude of the majority of local construction firms towards foreign contractors operating in Singapore appeared to border on the verge of complacency. This seems to have been promulgated by a belief that there are enough jobs for everyone, both locals and foreigners. A good case in point was in 1981 when the HDB decided to recruit foreign contractors to help speed up its public housing programme. An official spokesman for the SCAL had then claimed that Singaporean contractors are confident of competing on an equal footing with foreign builders for HDB projects. Furthermore, the then building boom has enough work to go around, the spokesman maintained. Other local contractors similarly appeared to echo the same confidence - that foreign contractors do not pose any threat to the local builders because, amongst other things, the latter are continually upgrading their expertise through mechanisation[50]. It was not until the construction slow-down of the mid-1980s that the same local firms began to aim a series of furious protests against their foreign counterparts. In the ensuing intense foreign competition in a shrinking market, the local construction firms also began

to campaign about their plight and lobby the government to exercise some discretion in pursuing its open-door policy. (The dialogues between the local construction firms and the Singapore government will be dealt with in greater detail shortly). Singaporean contractors maintained that their foreign counterparts have resorted to unfair competition by grave undercutting in tender submissions.

On the part of the foreign contractors, it would seem that what had originally been a mere trickle into the Singapore construction industry became a flood when many flocked to Singapore shortly after the massive contraction of the once attractive construction market in the Middle East. For many of these foreign contractors, it looks as if the alternatives then opened to them would either be to leave their accumulated resources idle or to compete for contracts in Singapore even though it may mean registering some initial losses which cannot be avoided by their systems of internal transfer pricing. If they had chosen the first alternative, then they would be availing an opportunity for local contractors to build up their own track records. In any case, the foreign firms will still face a loss if their resources are not employed gainfully. However, if they have instead chosen to venture into Singapore, even at the expense of making a loss, they would indirectly deprive the locals of a chance to build up their own experience and track records so essential in international contracting when the global construction market wishfully picks up again. In addition, although the foreign contractors may have to anticipate and endure some initial losses in their inroads into the local construction industry, their completed projects in Singapore will serve to enhance their track records still further.

The plight of the local construction firms has not remained oblivious to the Services Sub-committee. Appointed by the Economic Committee in 1985 to look into the services sector of the economy, the Sub-committee in its forecast of 1986 has predicted that the construction industry will remain in the doldrums for another 5 years and therefore called upon the government to implement measures to help local construction firms develop their track records for eventual exports overseas. The proposed measures include :

1. A register of Singapore-based architects and engineers who provide consultancy services.
2. Licensing foreign contractors on a contract-by-contract basis.
3. Introducing "compulsory residence" as a prerequisite for foreign architects and engineers who want to register and practise as consultants in Singapore.
4. Allowing only local firms to be principal consultants in all projects; and
5. Withdrawing government companies from direct competition with the private sector[51].

In an earlier recommendation, the Services Sub-committee had proposed the establishment of a S$200m revolving fund to help local construction firms sell their services abroad. Interests earned by the fund could then be used to partly or wholly

subsidize the costs of tender preparations and studies to help local contractors secure more projects overseas. The Services Sub-committee continued on to stress that export is the most important growth area for construction and consultancy firms and should therefore be consciously pursued and actively promoted because of the small domestic market in Singapore[52]. The Sub-committee further argued that by awarding public sector jobs to foreign contractors and consultants, local firms were deprived of the opportunity to upgrade and build up the necessary experience and track records for procuring works overseas. Ong (1986), however, reports that the Economic Committee has preferred a liberal, open-door policy in the service sector, and that local firms should not therefore rely on governmental protection to ensure themselves of a share in the domestic construction market. Ong (1986) believes the Economic Committee's stance on this issue is bound to be controversial as it goes against the vociferous pleas from local enterprises for a more discriminating application of the open-door policy.

12.7.6. THE CONTRACTORS-GOVERNMENT DIALOGUES

The twin effect which culminated from the onslaught of foreign contractors into Singapore and a downturn of the economy in the mid-1980s have produced an extremely dire impact on the local contracting industry. This appears to have spontaneously triggered a prolonged series of dialogues between the government and the local contractors, with the latter not unexpectedly taking the lead role in making known their precarious plight to the relevant authorities. These were undertaken, in the main, by the SCAL in its official capacity as the institutional representative of all the contractors in Singapore. The SCAL was only formed in 1977 following a merger between the Singapore Contractors' Association and the Singapore Building Contractors Society. Its origin, however, went back to as far as 1938. Besides its aim of developing an orderly and viable local construction industry, the SCAL also seeks to promote a high level of professionalism among its member companies in Singapore[53].

In their endeavour to safeguard the well-being of the local construction industry and in attaining their institutional objectives, the SCAL has commissioned a series of studies which sought to draw the attention of the authorities to the industry and in the process, establish their case for the support of local firms[54]. Among its more notable works in this direction are the comparative studies made between the financial structures and performance of Japanese and local construction companies in Singapore[55]. Japanese contractors were apparently singled out for this study because of their successful streak in securing both building and civil works contracts in Singapore. As pointed out earlier in this Chapter, Japanese firms shared 18.86% of the total building market in 1984 (see Table 12.7), and single-handedly won 14.2% of all the civil and structural contracts awarded for the MRT system. In the revised study of November 1985, the SCAL pointed out that for the 5-years period between 1979 and 1983, the Japanese companies examined have suffered a total loss of

some S$73m while local construction firms made a total profit of some S$111m. Furthermore, while the local construction companies paid a hefty S$41m in taxes, their Japanese counterparts paid only S$830,000. The consistently poor performance of all ten Japanese contractors over the 5-years period in Singapore raised several searching questions. In so far as the SCAL is concerned, the followings reflect the more pressing issues :

1. Firstly, how could the Japanese contractors sustain such continuous losses ? It certainly does not make sense for them to "subsidize" the Singapore economy since they are all basically commercial entities.
2. Secondly, are the Japanese contractors exploiting the use of "transfer pricing" to funnel their profits out of Singapore so that their taxation liabilities can be reduced ? If that is really the case, the SCAL maintained, then Singapore has invariably been "ripped off"; and
3. Thirdly, are the Japanese contractors deliberately underpricing their bids to break into the Singapore market ? If this is true, then the consequences can be grave for the local contractors in the long run because the continual undercutting of prices would eventually force local contractors out of business[56].

The findings of this study were subsequently submitted to the government and released to the Press by the SCAL[57]. These charges of unfair competition were, however, vehemently denied by the Japanese contractors. In response, Foo (1985) reports that the Japanese government were induced to step in to help resolve the friction by creating a post of Second Secretary in the Japanese Embassy in Singapore in April 1985 to handle construction-related matters.

At around the same time, the SCAL, through the CIDB, also appealed to the government to reserve tenders of up to S$20m for local contractors if the industry is to survive and develop its expertise which could be later exported abroad. Local contractors argued that the neighbouring Malaysian government was at least taking measures to preserve the Malaysian industry by announcing in late 1984 that tenders not exceeding M$10m will be reserved exclusively for Malaysian contractors[58]. This would appear to be a delicate issue for the Singapore government because if it gives in to the contractors' request, it may consequently set a precedent for similar lobbying from other sectors of the economy. The appeal was, therefore, not granted as the government remained adamant in maintaining its liberal policy of awarding contracts to the most competitive tenderers. The S$20m cut-off point proposed by the local contractors seem to indicate their preferred range of specialisation. Yet in another later attempt at lobbying the Economic Committee for quite a similar purpose in August 1985, the SCAL maintained that many Singaporean contractors were capable of handling jobs exceeding S$20m. In this later appeal, local contractors requested the government to give them a fair share of the public sector jobs that will be farmed out earlier by the government under a new economic package to help the building industry[59].

The dissatisfaction of local contractors over the role played by foreign contractors in Singapore appeared to reach an all-time high towards the end of 1985 when the prestigious contract to build a second passenger terminal at the Changi International Airport was awarded to a joint venture between a South Korean company and a Singaporean company with substantial Japanese interests[60]. Singaporean contractors argued that they need jobs of this nature to broaden their expertise and to make them more competitive in the world market. In response, the then Minister for National Development responsible for the project reasoned that it would be wrong to suggest that once a project has been awarded to a foreign contractor, local contractors would not have a significant role in it. In fact, the Minister continued, experience from the first passenger terminal building contract which was awarded to a Japanese contractor showed that more than half of the works were eventually undertaken by local contractors, with the foreign contractor responsible mainly for providing the necessary technical know-how, financing and project management expertise. It was then envisaged that approximately 70% of the works for the second terminal building project would, likewise, be subcontracted out to local contractors. The Minister went on to disclose that the government's adoption of an open-door policy, which allowed foreign contractors to participate in development projects, had enabled it to carry out a large number of projects at a reasonable cost and within the time target. Furthermore, many of the larger scale projects were simply beyond the technical capacity of Singaporean construction firms. The adoption of a protectionist policy which would exclude foreign contractors will therefore constrain the government undertakings of ambitious projects such as the Benjamin Sheares Bridge, the MRT system and other large scale land reclamation schemes. The government therefore fervently believes it would not be in Singapore's interests to reverse the open-door policy which has so far proved to be useful in accomplishing national development programmes[61].

In response to what they have perceived as unfair competition from both foreign and Singapore government-backed firms, local contractors have also suggested that a blue-print would be needed for the future if the government is to support the role of the construction industry in the economy. The appropriate authorities would then identify what skills and services Singaporean contractors should export and, consequently, what fundamental work they should do. Having outlined the role for the construction industry, the blue-print would then identify some of the projects which should be set aside for Singaporean contractors to build up their expertise and experience in these types of works[62]. Quek (1984), likewise, reports that the Singaporean contractors were convinced of the need to build up a strong home base before they can launch into overseas markets. Yet in as far back as 1981, the then Minister for National Development had observed that almost all of the major development projects in Singapore such as the Changi Airport Passenger Terminal, the East Coast reclamation works, petroleum refineries, shipyard and port

development, and large office / commercial projects have been or are being undertaken by foreign contractors. The Minister then noted that although Singapore has experienced a tremendous upsurge in construction activities since 1965, the local building industry had failed to upgrade with the same rigour. Without having any capacity of their own to handle the large and complex projects, it is therefore pertinent and important for local firms to develop a groundwork which is comparable with prevailing international standards[63].

It would appear that while the Singapore government has been reluctant in withdrawing its open-door policy for the local construction industry, it has, nonetheless, actively encouraged the transfer of technology to upgrade and improve the domestic base. This can be evident from the Preferential Margin Scheme implemented by the government to promote joint ventures between local and foreign construction firms which will, in the process, facilitate an element of technology transfer from the latter to the former. While technology transfer processes can be classifiable under user, production and design technology, the practice in the construction industry in this case tends to fall largely within the production category.

12.7.7. THE CONSULTANTS-GOVERNMENT DIALOGUES

The dramatic rise and fall of construction activities in Singapore in the 1980s have not only created a concern among local contractors. Local consulting architects, engineers and surveyors have, likewise, been affected seriously. It would however appear that the local consultants have braced themselves much earlier than local contractors for their thrust into overseas markets. The 1975 survey of engineering consultancy firms in Singapore carried out by the Ministry of Science and Technology (referred to earlier in Tables 12.3 and 12.4 of this Chapter) has provided an indication of their awareness in so far as overseas opportunities are concerned.

Again, in as far back as 1981, local architects have already called upon the government to give them information support and incentive schemes which will help them defray expenditures incurred on overseas market research and development, for promotional literature, overseas travel, and the costs of participation in overseas exhibitions. Leading members of the Singapore Institute of Architects (SIA) have then recognised that separate export-oriented consortia should be formed among the various professionals to handle overseas works. Because potential overseas clients usually prefer to deal with a single company that can provide them with all the necessary services, these consortia would then be well placed to provide a comprehensive range of services to them. There was an explicit understanding by leading SIA members that it is still beneficial for them to look ahead and diversify their practices so that architects can still turn to overseas markets should the local building industry slackens. Likewise, the SIA has recognised a need for all its members to keep abreast of the latest technology and materials available[64].

While some of these self-help measures may serve to buffer the industry to a certain extent, their effectiveness seemed to has diminished altogether following the rapid expansion and contraction of the local construction volume in the early 1980s. Like the contractors, local consultants were similarly affected badly by the severe construction slump of the mid-1980s. By the end of 1985, Tan (1985) reports that the local consultants in Singapore were already appealing to the government to intensify the farming out of its accelerated programme of public sector contracts in order to help them tide over the recession. The crux came in that same year when the Singapore Sports Council decided to award the prestigious Indoor Stadium project to world-renowned architect Kenzo Tange without calling for an open competition. This prompted local architects to intensify their lobbying of the government on two issues :

1. Firstly, that Singaporean consultants only should be given all public-funded projects; and
2. Secondly, to hasten the farming out of public sector architectural and construction projects to pump-prime the economy[65].

It is of interest to note that prior to this development, Singaporean consultants were already advised to supplement the slack in the domestic construction industry by undertaking projects overseas[66].

The drawback in the profession's bid for works overseas was hampered, however, by the smallness of most Singaporean firms which have neither the resources nor the track records by themselves to compete against their giant American, European and Japanese counterparts. In 1986, a move which was then hailed to set the trend for a more corporate approach to doing business by the profession was initiated when nine architectural firms teamed up to form a limited company to export their services. Because of the then limitations in the Architects Act, Singaporean architects cannot form corporations to undertake domestic projects. Since the Singapore Board of Architects registers only individuals as members for local practice, consortia can only be formed to undertake projects in overseas markets[67]. The confinement of building professionals to operating either as sole proprietorship or partnership has meant that incorporation for the purpose of pooling resources to form larger limited companies is restricted in Singapore. In response to this constraint, the Minister for National Development announced in April 1988 that the government will amend both the Architects Act and the Professional Engineers Act to enable local practitioners to form limited liability companies and eventually join the big league overseas. This means that a partnership will now be allowed to team up with other allied professionals and be incorporated to pool their resources and expertise to compete for contracts abroad. The size handicap of Singaporean consultants in relation to well-established international consultancy firms of other nationalities can, therefore, to a certain extent, be rectified[68].

## 12.8. GOVERNMENT'S ROLE IN PROMOTING EXPORT MARKETING

The role of government in promoting export marketing may be looked at from two perspectives - that directed towards either the whole economy or a particular sector within the overall economy. These are, however, closely linked. Government policies aimed specifically at a particular sector of the economy can have an attenuated influence on the overall economy as a result of sectoral spill-over effects. Likewise, general policies destined for the entire economy may affect or benefit some sectors more than the others. Government's policies in promoting exports may therefore be looked at from two levels - general to the national economy, and specific to a particular industry.

In the World Bank's (1984) study of the issues affecting the construction industries in developing countries, considerable emphasis was placed on the importance of the industry to the well-being of the national economy. Various forms of governmental support were therefore called upon to uphold the viability of the construction industry. In cultivating a favourable balance of payments position, it would appear that every government have a wish to see the development of an industry which is able to export its expertise overseas. Kotler (1988) suggests that the inevitable problem facing most countries happens when not enough of their companies participate in international trade. Fearing the lack of a capacity to earn adequate foreign exchange to pay for its imported goods, most governments in the free market economies have turned to aggressive export promotion. As Kotler (1988) notes, export promotion drives are not confined to the United States alone;

> "Every country in the world is trying to get its business firms to internationalize, or at least to start exporting. West Germany, the United Kingdom, and the Benelux and Scandinavian countries are now subsidizing marketing programs in their firms. Denmark pays more than half the salary of marketing consultants to help small and medium-size companies get into exports. Many countries go further and subsidize their companies by granting preferential land and energy costs, and they even supply outright cash so that they can charge lower prices than their competitors (Kotler, 1988:378)".

Keegan (1984) notes that most government programs designed to support the export activities of their firms come in three major forms - tax incentives, outright subsidies and information sourcing. In general terms, the role of government in export promotion in the case of Singapore has been dealt with by Tan (1975). Tan (1975) stresses that the first point a developing country must pay attention to is not export promotion but rather export development or the creation of "the atmosphere to export" at home. Export development, as such, includes the widening and structuring of the national industrial base, the identification of products that have export potentials as well as markets, and a pragmatic assessment of overseas market opportunities. In developing the industrial base, Tan (1975) notes that the EDB has introduced numerous incentive schemes in Singapore, including *inter alia* , the Pioneer Status Scheme, Capital Assistance Scheme, and training subsidies. At the

export level, besides adopting an extremely liberal trade policy, Tan (1975) adds that the Singapore government has likewise provided numerous assistance and incentives. These include a liberal foreign exchange policy, double taxation deduction, rediscount facility, and a concessionary tax rate for export oriented companies. Despite these provisions, the export efforts made by Singaporean construction firms do not appear to be entirely uneventful. Loh (1985a) observes that some hindrances still remained. In particular, the repatriation of profits from abroad and double taxation arrangements with countries which trade with Singapore remain high on the priority list.

12.8.1. GENERAL ROLE : LAYING THE GROUNDWORK

In laying the groundwork for expanding and improving the structural base of the economy, several organisations were set up by the Singapore government. These organisations were in turn responsible for instituting various incentive schemes aimed generally at the entire economy. A major vehicle for this purpose was the EDB, first set up in the early 1960s. EDB administers several incentive schemes, including tax relief for pioneer industries, investment allowances, and warehousing and servicing incentive schemes. When the Singapore economy started to expand considerably in the late 1960s, it became necessary for EDB to delegate some of its more pressing areas of specialisation to other establishments set up for that purpose. The Jurong Town Corporation (JTC) and the Development Bank of Singapore (DBS) were, as a result, established in 1968. JTC was set up specifically to oversee and manage the development of the Jurong and other industrial estates, and its various economic promotion programmes include the International Consultancy Services, Expansion Incentives, and Accelerated Depreciation Incentive Schemes. DBS, on the other hand, was set up to provide favourable financial encouragement for industrial expansion in the private sector. It also administers both the schemes for tax exemption on interest on approved foreign loans and concessionary tax rates on royalty incomes. Several other institutions have also originated from the EDB. The Industrial Research Unit within the EDB, for example, was reorganised in 1969 to form the Singapore Institute of Standards and Industrial Research (SISIR). The Singapore Institute of Management (SIM), formed in 1964, and the National Productivity Centre (now the National Productivity Board (NPB)), formed in 1967, likewise have their origins in the EDB.

The Singapore government has also set up Intraco Ltd., (acronym for International Trading Company Ltd.), in 1968 as a public trading company to promote imports / exports, bulk buying and commodity trading. Intraco Ltd. is similarly responsible for overseeing the duty-free import of equipment, skill development grants and Capital Assistance Schemes. Of late, the Government of Singapore Investment Corporation (GSIC) was set up in 1981 as a vehicle for upgrading the technological base of the economy. As a private company, the GSIC is chaired by the Prime Minister using a part of Singapore's foreign exchange reserves as an operating fund. The GSIC

administers the Product Development Assistance and the Research and Development Incentive Schemes.

Other export-oriented organisations set up by the Singapore government for the national economy as a whole include the Trade Development Board (TDB) and the Export Credit Insurance Corporation of Singapore (ECICS). These will be dealt with in greater details later in this Chapter[69].

The importance of export marketing within the economic system, however, seems to has been explicitly pursued only in the 1980s. In 1982, for instance, the Marketing Institute of Singapore (MIS) and the Technology Transfer Institute (TTI) visited Japan to study the essence of Japanese marketing skills. This included an examination of the Japanese way of promoting marketing activities, their network of marketing information system and their marketing management techniques. In so doing, both the MIS and the TTI hoped to upgrade the applications of marketing in Singapore and, at the same time, explore the feasibility of exporting to Japan[70].

The role of export marketing and international trade appears to have been elevated further in 1985 when the Singapore economy suffered a first negative growth in the two decades after independence. In response to this slump, a Sub-committee on International Trade was also subsequently appointed by the government to review and recommend a package of incentives to improve Singapore's export performance. Eventually, the Sub-committee on International Trade has proposed a package of seven incentive schemes for enhancing Singapore's position in international trade. These include :

1. The setting up of an Export-Import (EXIM) Bank to provide both long- and medium-term loans to exporters looking for export financing.
2. Interest grants for export financing to reimburse small businesses with the difference between the commercial rate of interest they have to pay on export credits and the Monetary Authority of Singapore's (MAS) rediscount rate.
3. Export credit insurance premium grants to partly reimburse the premiums payable by small exporters to the ECICS.
4. Assistance in setting up overseas offices, and where the losses incurred in the setting up of such offices may be offset against the parent company's income.
5. Amendment of Section 13(7) of the Singapore Income Tax Act so that more Singapore companies can repatriate their earned income back to Singapore freely.
6. Extension of the Double tax deduction scheme so that approved export promotional trips overseas can be made available to all export companies instead of being offered on a case-by-case basis; and
7. Modification of the international trade incentive scheme so that companies can enjoy a reduced income tax rate of 20% over a 5-years' period if the company is engaged in new activities like countertrade and trading in the non-traditional markets.

The Sub-committee on International Trade has also stressed that businessmen must take advantage of these incentives to go out and sell. While the government has been instrumental in setting the environment and in giving incentives, nothing will happen if Singaporean businessmen still remain reluctant in exploring overseas markets or persist in sticking to the traditional ways of doing business[71].

On the part of the private sector, an Association of Small and Medium Enterprises (ASME) was set up in September 1986 to cater for companies in the manufacturing, trade and service industries. As part of its market development programme, the ASME seeks to help the small and medium enterprises break into the international market. It hopes to achieve this through a series of programmes to assist member companies on the legal and other aspects of international trading[72]. A concentrated effort to produce professionals competent in handling international marketing came in 1987 when the TDB, along with the MIS, ECICS, NPB, SIM, Singapore Federation of Chambers of Commerce and Industry (SFCCI), and Singapore Enterprise Bureau (SEB) set up the Committee for Development of International Marketing Expertise (CDIME). The CDIME has identified four objectives :

1. To collate information on available training programmes in international marketing.
2. To identify gaps in the existing training programmes.
3. To encourage organisations to put together programmes that will fill these training gaps; and
4. To encourage more small and medium sized enterprises to train their marketing personnel in international marketing.

As part of the effort, the TDB has approached the European Community (EC) for assistance on the development of international marketing programmes for Singaporean companies. An Institute of International Marketing will eventually be set up if the need arises[73].

12.8.1.1. THE ECONOMIC DEVELOPMENT BOARD (EDB)

The establishment of the EDB in the early 1960s marked a crucial milestone in the management and development of the Singapore economy. Much of EDB's strategic approach in this direction has revolved around a long-term perspective. As the Board's Chairman noted in 1986, the nature of EDB's work is such that the efforts made today may only bear results years later[74]. The EDB both administers and authorises several incentive schemes, some of which have direct relevance for the construction industry. As highlighted earlier in Section 12.6 of this Chapter, these include the Training Grant Scheme, Development Consultancy Scheme, Initiatives in New Technologies Scheme, Interest Grant for Mechanisation Scheme, and the Small Industries Finance Scheme.

Having established the structural base for the national economy, it would appear that the EDB has since then proceeded on to place considerable emphasis on international trade and marketing. This may be apparent when in October 1987 the Marketing

Support Division was set up within the organisational framework of the EDB. This Division seeks to provide the various front-line operating units with support in external communications and marketing information so that the Board's officers can service their clients more effectively and efficiently with more complete information and timely ground support[75]. The efforts in this direction appear to have intensified further when in September 1988, the EDB announced the International Direct Investments (IDI) programme and formation of a Strategic Business Unit (SBU) to help local companies expand overseas and eventually become multinational corporations. These enable the EDB to undertake special projects which require greater focus and attention from within its organisation. By helping local companies globalise, the EDB hopes that economic spin-offs such as access to new technology can eventually be realised[76]. A month later, in October 1988, the EDB again set up a high-level Business Development Advisory Panel to help local firms penetrate into overseas markets. Companies which present their business plans to the Panel will be able to tap the expertise of panel members on ways to improve and refine their plans. The Panel will both act as a "think-tank" for these companies and assist them in implementing relevant action plans[77]. Developments in this direction within the EDB appear to be a direct response to the Board's aim of nurturing Singapore's immediate and future functions as a strategic node for global enterprises. As the Board's Chairman notes in his annual report for 1987/88, "globalisation is the only way ahead"[78].

12.8.1.2. THE TRADE DEVELOPMENT BOARD (TDB)

The TDB was set up in 1983 to investigate new markets and products for Singaporean companies and at the same time, to function as a channel to counter protectionist trends[79]. To-date, a comprehensive chain of worldwide offices has been set up by the TDB. Originally established with a sole concentration on manufactured products, it seems that the TDB has only recently broadened its export promotion scope to cover all types of services and international trade in 1986[80]. In January 1986, the TDB proposed a four-pronged approach to aggressively capture new markets and to push for the export of professional services. The four strategies for exports include :

1. Breaking into new markets, including North and West Africa, Eastern Europe and Canada.
2. Exports of new products to existing overseas markets.
3. Providing technical know-how and professional services to developing countries; and
4. Promote and sustain exports to developed countries[81].

In tandem with the above strategies, the TDB has also set up the Market Development Assistance Scheme (MDAS) way back in 1985 to provide financial and other assistance to companies producing goods or services for the export market. Available only to companies incorporated or registered in Singapore, the MDAS primarily seeks to enhance promotional activities directed at export market development. There are

four main programmes under the MDAS :

1. Assistance to set up overseas offices / facilities.
2. Assistance for design project.
3. Assistance for marketing new products / services; and
4. Assistance for developing and penetrating new markets.

The financial assistance rendered under the MDAS is considered on a project basis. Under the Scheme, the TDB will finance up to 50% of the eligible costs incurred by a company, subject to a maximum sum of S$250,000. (The minimum amount being S$2,000). The Board is, however, willing to consider any application exceeding the maximum limit on a case-by-case basis. A similar scheme for small businesses has also been set up under which the TDB will provide financial assistance on a dollar-for-dollar basis, up to 50% of the eligible costs incurred, but subject to a maximum of S$10,000 per company in any one calendar year[82].

Numerous other assistance schemes, both financial and non-financial, have also been introduced by the TDB. In early 1986, the TDB has set up an on-line information retrieval service which can help provide crucial advance information to local businessmen and in the process, assists them in clinching deals. By hooking on to the "Scan-a-Bid" database, the TDB can now furnish the latest information on consulting, contracting and supply opportunities for Third World country development projects long before tenders are called[83]. In December 1986, the TDB also introduced the International Bidding Scheme to encourage the participation of local engineering services companies in international tenders. Under the Scheme, the TDB shares half the cost of bid preparation by giving grants of up to 50% of approved bidding costs, subject to a maximum of S$50,000 per project. If the company succeeds in its bid, it will have to repay the grant given by the TDB[84]. With the growing importance of countertrade in international trading, the TDB has also set up a Countertrade Services Unit in May 1985. Along with this Unit, a Register of Traders was also compiled for identifying large local and international traders. A Countertrade Club was subsequently set up in September 1985 to promote the informal gathering of business executives who are keen on countertrading. Following its gazette in May 1985, the Pioneer Incentive Scheme for Countertrade Services, provided for under the Economic Expansion Incentives (Income Tax) Act, was announced by the TDB. This was aimed at transforming Singapore into a Countertrade Services Centre. Under the Pioneer Incentive Scheme, countertraders can enjoy a 5-years tax exemption provided the following three conditions are met :

1. A separate company must be formed to engage only in countertrade activities.
2. The company must have established international trading links; and
3. At least one part of each countertrade transaction, whether financial or physical movement of goods, must be routed through Singapore[85].

In December 1988, the TDB also announced plans to set up an Institute of Exports to train local trading executives and provide consultancy services to companies

venturing abroad, particularly into the new, non-traditional markets. Through the Institute, the Board hopes to train executives in areas such as trade financing, insurance and shipping. In the process, the promotion of trade-generating overseas investments by local companies can be initiated[86]. The growing importance of exports was underlined in early 1988 when both the SFCCI and the TDB made a joint announcement to stage Singapore's first export services exhibition and conference for the Asia-Pacific region. This event will promote the services of all enterprises in the private and public sectors dealing with export-related services[87].

12.8.1.3. THE EXPORT CREDIT INSURANCE CORPORATION OF SINGAPORE LTD. (ECICS)

Established in 1975, the ECICS is jointly owned by government-backed Temasek Holdings and 150 other banks and insurance companies. It has as its primary objective the support of Singapore exports by offering protection to exporters from commercial risks. Through its policies, the ECICS seeks to :

1. Protect exporters from default of overseas buyers; and
2. Enhance the exporters' financing facilities offered by local banks.

The ECICS has available the Comprehensive Short-term Policy and the Specific Long-term Policy. Several other facilities are also offered by the ECICS which may be of relevance for international construction. These include the Specific Bank Guarantee, Buyer Credit Guarantee, Bond Issue Support, and Overseas Investment Insurance[88].

As a result of the growing importance of factoring in the export trade, the ECICS has also set up a wholly-owned subsidiary in July 1987 to take over its factoring business[89]. Factoring is a form of trade financing whereby the financial institution or factor (in this case, the wholly-owned subsidiary set up by the ECICS) buys over the invoices of a supplier of goods and services. On maturity of the credit period, the factor collects the amount due on the invoice from the buyer. Factoring facilities, therefore, enhance the supplier's financial standing and at the same time, indirectly provide an extended credit line to the buyer.

12.8.2. SPECIFIC ROLE FOR THE CONSTRUCTION INDUSTRY

The general export promotion role of the Singapore government for the national economy has been dealt with in the immediate preceding sections of this Chapter. While the focus of this work is directed at construction, it is, nevertheless, of necessity to consider the government's general role for the national economy which invariably has a multiplier influence on the construction industry. This will be evident later in the following sections of this Chapter when an examination is made of how this multiplier effect has benefited the construction industry in so far as export marketing is concerned.

12.8.2.1. GOVERNMENT'S RESPONSE TO THE CONSTRUCTION SLOW-DOWN IN THE 1980s.

The severe downturn of the Singapore construction industry in the mid-1980s had resulted in numerous calls for governmental help from local contractors. The SCAL, as the representative body for the contractors in Singapore, has, time and again,

urged the government to render whatever assistance it can muster to help local contractors secure more jobs. The government was also urged to stimulate some infrastructural works for the benefits of local contractors[90]. This appeal appears to follow closely the government's announcement in August 1984 whereby the government would accelerate more than 200 development projects worth about S$4.2 billion to stimulate the economy[91]. The government's plan was to farm out more consultancy works to private firms to help tide them over the hard times. The first batch of public building projects under this accelerated scheme, worth some S$82m, was subsequently farmed out to private consultants in October 1985. Then again, in August 1986, the MND announced another S$700m morale-boosting package for the construction industry which will be spread over a 10-years' period. This public civil engineering package was over and above the S$1 billion road development programme announced by the government in 1985[92]. From these measures, it seems evident enough that the government, while reluctant to exclude foreign competition in Singapore on protectionist grounds, has nevertheless attempted to help the construction industry through other means.

While it would appear that the Singapore government has never intended to use the massive S$5 billion MRT project to boost the domestic construction industry, its timely implementation announced in May 1982 has nonetheless benefited the industry tremendously. This was in spite of the fact that the first MRT civil contract was awarded in September 1983 to a wholly Japanese-owned joint venture[93] ! While building works continued to slump further in the immediate years after 1982, the construction industry was given further impetus by the civil works generated by the MRT project. On the other hand, the perceived responsiveness of the government in handling the over-built situation of the mid-1980s appeared to be well demonstrated by the JTC when it shelved its building plans in 1984 following an apparent glut of office and factory space in the market. This moratorium lasted until 1988 when JTC, in anticipation of a strong demand for industrial space in Singapore, once again revived its building programme[94].

12.8.2.2. INDICATIONS IN THE EXPORT DIRECTION

Apart from the direct assistance given by the Singapore government to help the construction industry upgrade its structural base, there appears to be several indications over the years which reflect the government's desire to see an industry capable of exporting its expertise overseas. In setting the future scenario for the HDB, Teh and Yeoh (1973), for instance, have observed that with the experience it has gained in the public housing sector, the expertise of the HDB could well be made available to other countries intent on solving their housing problems. This would seem to suggest that way back in the early 1970s, the authorities concerned have already seriously thought about exporting Singapore's construction expertise overseas. The "lead-by-example" role which the government had adopted appeared to has led to the establishment of Indeco Pte Ltd, a government-owned building

consultancy company, in 1972. (Indeco being the acronym for International Development and Consultancy). Set up by both the Ministry of National Development Holdings and the Urban Redevelopment Authority (URA), Indeco aims to avail countries in the region with expertise and know-how developed by Singaporean professionals in the areas of public housing, urban renewal, town and city planning, industrial estate, and other infrastructural development. Indeco's strategic move has been to bag a number of local projects to gain the requisite track records before venturing into overseas markets[95]. Loh (1985a), for instance, has recognised Indeco as a vehicle agent used to spearhead the export drive and to farm out successful overseas contracts to various Singaporean subcontractors. Other public authorities have also appeared to follow Indeco's footsteps soon afterwards. SPECS Consultants Pte. Ltd. (SPECS being the acronym for Singapore Engineering and Consultancy Services), for example, was set up by the Port of Singapore Authority (PSA) in 1979 as its consulting arm to sell its services abroad. SPECS has since then undertaken numerous projects across Asia and the Middle East[96].

While the Singapore government has hoped to realise the eventual exports of construction services overseas, it had also recognised the tardy attitude prevalent in the local construction industry in the early 1980s in so far as the pursuits of higher productivity and mechanisation are concerned. While the exports of construction services may be desirable on the one hand, Singaporean contractors would not be able to compete effectively with contractors of other nationalities if their technological offerings cannot match up to the expectations of foreign clients. This reservation appears to has prompted the Singapore government to set up its own construction company to compete for HDB contracts and in the process, takes the lead in experimenting and promoting new technologies within the local industry. Contech Pte. Ltd. (Contech being the acronym for Construction Technology) was, as a result, formed in November 1980. With the backing of the government, Contech hopes to hasten the pace of mechanisation amongst local contractors. Contech has since then played a major role in exploring the use of modern technology in building construction, especially in public housing projects. Having pioneered the use of tower cranes, rough terrain cranes, forklifts, passenger hoists, metal formwork and other proprietary formwork systems on HDB sites, Contech has helped the other HDB contractors overcome the uncertainty and risk of trying out new methods which many have feared may fail them[97].

It would also appear that the Singapore government has lost no time in advocating the exportability of Singapore's construction capabilities. At a high-level symposium held in Japan in mid-1986, a prominent member of the Singapore Civil Service has stressed that while Singapore will continue to acquire technology from the advanced nations, she is, nevertheless, willing to provide countries in the Asia-Pacific region with its own expertise, particularly in the field of housing and construction[98]. In February 1987, the Minister for National Development called on Singaporean

construction companies to seek growth opportunities in overseas markets and not to place unduly high hopes in the domestic construction market. The Minister went on to announce that the accumulated public sector expertise would also be made available to local contractors to assist them in their marketing efforts[99]. It would also appear that the local contractors in Singapore only came to accept the need for them to venture abroad in the second-half of the 1980s. Nonetheless, the SCAL had maintained in 1987 that the successful export of local services has to be a national effort and subsequently called upon the government to play a greater role in providing critical up-to-date market information for potential exporters[100]. On their part, the SCAL has also set up a new Export Promotion Committee which had its first meeting in June 1987. Among its tasks, the Committee sets out to :

1. Establish a databank of companies interested in export and to encourage the formation of consortia.
2. Organise talks and seminars by merchant banks on banking and financing practices.
3. Organise an Advisory Panel of bankers and countertraders to counsel SCAL members; and
4. Identify available government assistance for contractors in the export market[101].

The way ahead in the export market would, however, appear to rest first in effecting a high degree of competitiveness through quality construction. The government has argued that it is only through quality construction that technological advancement and organisational transformation may be manifested within the local construction industry[102]. Without these attributes, it would be difficult for local contractors to compete successfully in the world market. In June 1988, the Minister for National Development disclosed that the next phase of development within the construction industry would be "to build on the foundation which has been laid". The challenge in the future will lie in meeting the demands for quality and in offering value for money[103]. The Minister then went on to add that in its corporate plans, the CIDB needs to focus its attention on improving cost competitiveness, increasing quality consciousness, and developing construction exports[104].

As to the rich track records accumulated by the government in its public sector projects, the Minister for National Development pointed out that the vast overseas potentials which exist for some statutory boards and public bodies have been harnessed opportunely. The HDB, URA and the Planning Department, for example, have already made their marks in some of the cities in the People's Republic of China[105].

12.8.2.3. TDB'S ROLE IN PROMOTING CONSTRUCTION EXPORTS

The general role of the TDB in the national economy of Singapore has already been considered. The specific role of the TDB in promoting the exports of construction services from Singapore has also been significant. In particular, the MDAS, introduced by the TDB in September 1985, has been utilised on several occasions by

the construction industry in so far as export marketing is concerned. The Board has set aside, in 1985, S$25m under the Scheme to help Singapore-registered companies defray part of the initial costs incurred when developing export markets. To qualify, companies must satisfy three criteria :

1. The company must manufacture and / or export goods or services with no less than 25% of Singapore content (including materials, labour, production overheads and other expenses incurred in Singapore).
2. The company must have sound managerial and financial capabilities with positive net worth and working capital; and
3. The company must not be exporting to its overseas parent or affiliated companies[106].

In October 1985, S$136,500 under the MDAS was awarded to a group of five building professional bodies who have teamed up to market their expertise to China. This amount was awarded to help defray the costs of a two-year sustained promotion programme which the group has targeted in various parts of the PRC. This was then the single largest cash grant given favourable consideration by the TDB because of the long-term gains accruable to the development of various professionals in Singapore[107]. In the second half of 1986, the TDB again awarded a grant of some S$170,000 to the SCAL to enable the latter to promote the sale of Singapore's construction services in the South Pacific over a one-year period. This promotion programme was divided into two stages. Under the first stage, which commenced in July 1986, a construction mission visited several countries in the South Pacific to get an insight into local practices, policies and requirements, foreign competition and business opportunities. In the second stage, the mission's findings were made available to other members of the SCAL who did not form part of the delegation. These provisions were all part of the Board's commitments to help promote the export of Singapore's construction services[108].

In December 1986, the TDB extended the MDAS to include grants to help local companies defray the costs of bidding for international projects. Under the International Bidding Scheme, the Board shares the preparation costs for a bid by giving grants of up to 50% of approved bidding costs, subject to a maximum of S$50,000 for each project. If the company is successful in its bidding, then it will have to repay the Board for the grant given under the Scheme. No repayment, however, is required if the company fails to secure the bid. Mainland Investors (S) Pte. Ltd., a consortium of five leading Singaporean contractors, was the first company under the Scheme to win the S$89m Jin-Cang Mandarin Hotel in Shanghai[109].

In the light of the growing importance of construction exports in the dwindling Singapore construction market, the TDB also responded by setting up the Infrastructural and Engineering Services Advisory Committee in May 1987. The Advisory Committee, which consists of practitioners from both the public and private

sectors, aims to help develop and promote the industry further for the export market[110].

12.8.2.4. OVERSEAS CONSTRUCTION MISSIONS

Overseas missions have appeared to be a popular mode adopted by the Singapore construction industry for identifying export opportunities in foreign countries. Apart from the promotional trips under the auspices of the TDB's MDAS noted above, the industry has also ventured abroad on its own accord in search of market openings. While overseas reconnaissance visits may have been undertaken individually by some companies, much of what has been publicised in the Press regarding overseas missions are nonetheless organised at the national level. Merchants' Associations, professional bodies, statutory boards and even Cabinet Ministers have actively participated in overseas missions aimed at marketing Singapore's constructional offerings.

In October 1984, the first construction mission to the PRC was organised by the CIDB in conjunction with the TDB. Led by the then CIDB Chairman, the 26-members delegation included leading local contractors and consultants. During the mission, contacts were made and negotiations on contracts for hotels and office buildings in several Chinese cities were also initiated[111]. With the slowdown in construction in Singapore, local manufacturers have also intensified their export drive in order to keep their production lines running. The Singapore Building Material Suppliers Association likewise visited the PRC in April 1985 to explore further possibilities for business in anticipation of a further business slowdown in Singapore[112]. The Building Materials Group of the Singapore Manufacturers' Association had also spearheaded selling missions in 1986 to the PRC, Brunei, Papua New Guinea, and other countries[113]. At the Ministerial level, the then Minister of State for Trade and Industry, and Home Affairs had led a 23-members construction mission to the PRC in April 1986. This was the second mission to the PRC organised by the TDB and the CIDB[114].

In September 1985, a fact-finding mission was sent to Manila by the TDB to develop ties with the ADB[115]. Two World Bank officials were similarly invited to Singapore by the CIDB in September 1986. The Bank's Consultant Services Advisor told Singaporean companies to be more aggressive in selling their services and noted that although Singapore has the technical capability in many areas, the marketing of this expertise is still very much lacking. In an address to participants of a seminar organised by the CIDB, the two World Bank's experts also discussed how Singaporean companies can get started and compete more effectively for World Bank's contracts, what services are needed and how essential market information on projects may be obtained[116].

With its overseas offices established worldwide, the TDB has been particularly active in organising missions which have enabled Singaporean companies to get a first-hand knowledge of various foreign markets. Administrative matters are

invariably eased considerably by the numerous TDB's offices located permanently overseas. In June 1987, TDB organised the first participation for eleven Singaporean companies at the 5th International Building Exhibition in Hong Kong. This provided another opportunity for companies in the electrical and constructional industries to promote their services and products abroad[117]. Amongst others, the TDB has also mounted construction missions to Pakistan and Sri Lanka in September 1987[118].

The Singapore construction industry can compete effectively on the world market only if its level of sophistication is continuously monitored and brought up-to-date. It would appear that this necessity has been recognised by the CIDB. In response to this need, a mission on construction management was mounted by the CIDB to Japan and the United States in November 1988. In the process of familiarising itself with the practices of highly industrialised countries, the Board aims to develop the level of construction management expertise in Singapore to match those of the developed world's[119].

12.8.2.5. THE CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB)

Prior to March 1984, the construction industry in Singapore did not have a single government agency which it can call its own. Most of the policies directed at the industry before this date have emanated, in the main, from the MND. However, the slowdown in construction activities after 1982 has provided an opportunity for setting up an agency to both restructure and further improve the Singapore construction industry. The CIDB was thus constituted by Parliament on 2 March 1984 as an agency responsible for planning and overseeing the development of the local construction industry. The rationale behind the formation of the CIDB has been underlined by Chow (1984). The performance of the construction sector was then lagging behind persistently in terms of the amount of manpower it utilised and the contribution it made to GDP. There appears to be two phases of development within the industry in the 1980s. Up to the mid-1980s, the construction industry had primarily focussed on providing public housing and infrastructural facilities to support Singapore's double digit economic growth rates. The priority was then centred on upgrading the industry to provide the groundwork for future impetus. Having accomplished this, the industry moved to its second phase of development in search of quality, export markets and providing value for money. It would therefore be reasonable to expect some amount of adaptation and change in the Board's role with the passage of time.

Under the Construction Industry Development Board Act (1984), the functions of the Board are as follows :

1. To promote the development, improvement and expansion of the construction industry.
2. To facilitate and assist in the mechanisation of the construction industry.
3. To advise and make recommendations to the government on matters affecting or connected with the construction industry.

4. To promote proper standards and efficiency in the construction industry by encouraging the standardisation and improvement of construction techniques and materials.
5. To provide consultancy and advisory services with respect to construction works.
6. To keep under review the training requirements of the construction industry and assist in providing training facilities.
7. To promote the advancement of the skills and expertise of persons engaged in the construction industry; and
8. To promote or undertake research into any matter relating to the construction industry.

To fulfil its functions, the Board is empowered under the 1984 Act to :

1. Provide financial assistance in the forms of grants, loans or otherwise to persons engaged in the construction industry and provide any guarantees on their behalf.
2. Promote and assist in the export of services to carry out construction works overseas.
3. Organise courses and award diplomas and certificates of proficiency.
4. Form or participate in the formation of a company.
5. Enter into a partnership or an arrangement for the sharing of profits.
6. Charge fees or commissions for services rendered.
7. Promote or undertake publicity in any form; and
8. Do anything incidental to any of the above powers[120].

At its inception in 1984, the Board was organised into three main divisions (see Figure 12.11 for the CIDB's organisation chart).

The Technology Development Division was responsible for co-ordinating and supporting the industry's research and development efforts and in promoting the applications of mechanised construction methods and new technology. The Industrial Development Division, on the other hand, oversees economic policies relating to the industry, the registration of contractors, the promotion of construction exports and the development of the maintenance and retrofitting sector. The Manpower Development Division was responsible for manpower policies and manpower training relating to the construction industry.

As noted earlier in this Chapter, the CIDB also administers several schemes for the construction industry, including the Investment Allowance Scheme, the Preferential Margin Scheme, and the Training Grant Scheme.

12.8.2.6. THE CONSTRUCTION EXPORTS PROMOTION UNIT (CEPU)

In the course of taking up exports promotion as one of its activities, the CIDB has commissioned a task team shortly after its inception to look into the possible strategies that may be used by the local contractors. As Chow (1984) has disclosed, the team had attempted to identify potential markets and how these markets may be developed for the export efforts of the Singapore construction industry. The team has also examined the various ways of promoting exports and how construction services

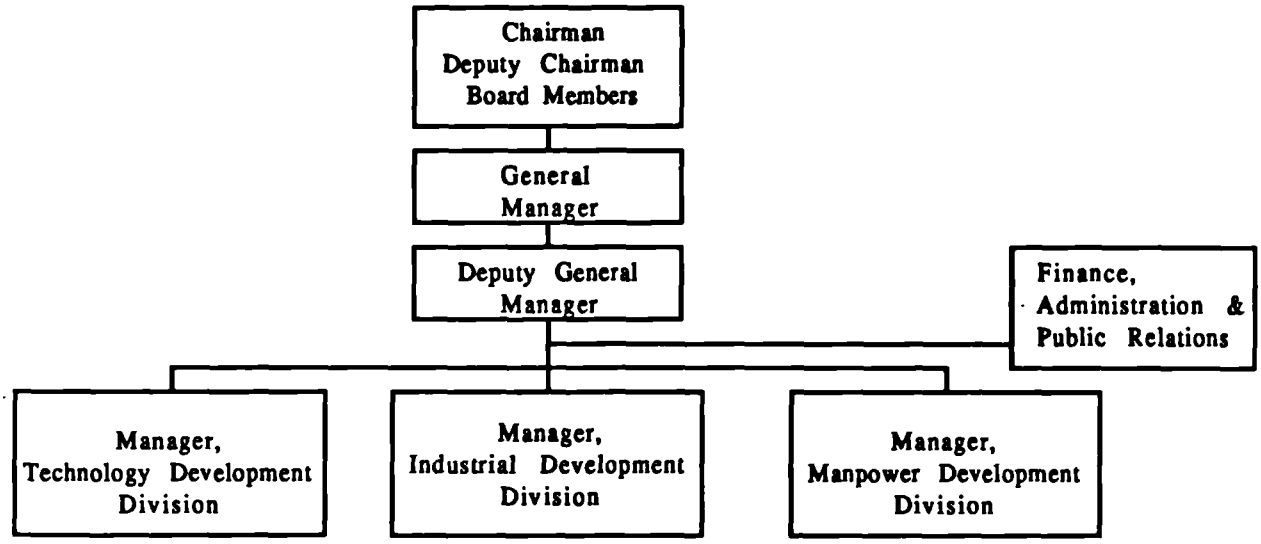



FIGURE 12.11 : CIDB'S ORGANISATIONAL STRUCTURE IN 1984

may be attractively packaged for overseas clients.

The CEPU was eventually set up by the CIDB in October 1984 under the Industrial Development Division. As Keys (1985) notes, the aim of the CEPU is to help those local contractors, who are being "squeezed" by the slower domestic market, find work abroad. The CEPU will endeavour to :

1. Find out about potential projects abroad and put local contractors in touch with other contractors who have undertaken overseas work before.
2. Provide the TDB with a formal channel to pass on enquiries from foreign clients to Singaporean construction firms; and
3. Encourage Singaporean construction firms to look towards exporting both its capacity and expertise.

Export promotion is encouraged by providing government-sponsored training programmes, interest-free incentives, loans and tax write-offs. In January 1985, the CEPU inaugurated the Construction Market Information Service (CMIS) designed to provide local construction firms with advanced notice of overseas projects. Under the CMIS, a monthly Construction Markets Report (CMR) is published and disseminated to provide overseas project information, market reviews of selected countries, and forecasts of local public projects. Construction Market Circulars, detailing notices of overseas prequalifications and tenders, are also disseminated directly to the relevant companies as and when these are received by the CEPU.

In May 1985, the CIDB announced a restructuring and upgrading of the CEPU to give local contractors a sharper edge in the international market. The revamp means that the Exports Promotion Unit would now be restructured into 4 groups :

1. Market intelligence.
2. Marketing and promotion.
3. Advisory services; and
4. Policies and planning.

The local contractors' lack of marketing flair in the international arena and their limited exposure to international contracting were cited as the underlying reasons for this reorganisation. These were serious factors to be considered as the local contractors could no longer depend on the shrinking domestic market[122].

The Construction Exports Advisory Service, instituted under the CEPU, was designed to help local construction companies establish new contacts, obtain an up-date on foreign construction markets, as well as obtaining the necessary references to new clients. In so doing, the CEPU hopes to provide a national service which can help supplement the marketing efforts of local companies and thus reduce their time needed to explore each individual market[123].

12.8.2.7. ASSISTANCE AND INCENTIVES IN CONSTRUCTION EXPORTS

Apart from establishing an institutional framework for organising and co-ordinating development activities within the construction industry, the Singapore government has also endeavoured to provide various assistance schemes, both financial and non-financial, to help local contractors export their services abroad. In as far back as 1985, the Services Sub-committee had called upon the industry to tap the wealth of specialised experience accumulated in various government departments before it is lost. Such experience, the Sub-committee argued, could be harnessed and developed into marketable services which were in demand abroad. Over the years, while various government bodies have acquired wide-ranging experiences in numerous fields, including housing, town planning, airport and port design and operations, parks and recreation, industrial estates and land reclamation, etc., only a few such services have been exported so far. It would therefore be pertinent for private construction firms to work with the relevant government bodies in marketing these services abroad[124].

In December 1986, the Singapore government announced a four-points plan to assist the then troubled construction industry. Besides helping local contractors to secure more renovation and maintenance works at home, the plan also aims to help the industry gets more jobs overseas. The incentives under the plan include the followings :

1. To stimulate maintenance and retrofitting works, the government will not increase property taxes for 5 years after the works have been completed despite the attainment of an enhanced annual value after the renovation.
2. Maintenance works on major public facilities will be farmed out to private firms.
3. Government employees can be attached to private firms to help them compete for and carry out overseas projects; and
4. Assist firms in their overseas tenders by offering them a dollar-for-dollar grant, up to a maximum of S$50,000 per tender.

The government package also includes a Centre for Advanced Construction Studies which will provide the management and senior construction staff of contracting firms with the know-how to export their services[125].

While the call to tap government expertise in the field of construction was made in late 1985, the Attachment of Public Sector Professionals for the Export of Construction Services (APPECS) Scheme did not yet come into existence until January 1987. Launched by the CIDB, the APPECS Scheme was designed to enable private sector firms to tap the accumulated specialist resources available in government departments and statutory boards. Through the Scheme, public sector employees can be used to supplement the in-house capabilities of local firms for specific overseas projects. The Scheme operates by allowing specialists and experts from the public sector to be seconded to private contracting companies. In so doing, the company concerned will have access to the vast specialist resources available in government agencies without the need to shoulder high overheads. Private contracting companies will then be able to handle a wider range of construction and consultancy works and, over time, gradually build up the requisite capabilities and track records essential for overseas jobs. Furthermore, the required public sector specialists and experts are made available to private contracting companies at costs without any margin accruable to the CIDB nor the government agency concerned[126]. By mid-1988, an airport specialist, a traffic systems specialist and a geotechnical expert were respectively attached to firms involved with the design for the expansion of an airport in the PRC, the development of an area traffic control system in Brunei, and the construction of a hotel in Shanghai[127].

In October 1987, the CIDB introduced the Tenders Estimating Data Service (TEDS) to provide Singaporean tenderers with a means of gauging prevailing wage levels and prices of important construction materials in another country. In so doing, TEDS enables companies to assess the quotations submitted by indigeneous subcontractors or suppliers for particular projects overseas. Tender prices can then be computed and checked for pricing risks. Because of the substantial time and costs involved in obtaining information of this nature on a continuous basis, TEDS strives to help local companies avoid the ritual of having to initiate such an exercise for various markets overseas. Economies of scale on an industry-wide basis can therefore be obtained. As a co-ordinator, the CIDB also helps to promote the exchange of cost information between local construction companies[128].

The Singapore government has also introduced several tax incentive schemes to encourage the promotion of the services sector. These include the Pioneer Service Incentive Scheme in 1985, the Approved Headquarters Incentive Scheme in 1987, and the Export of Services Incentive Scheme in 1988. The Export of Services Incentive Scheme, under the provisions of the Economic Expansion Incentive Act, has been extended by the Ministry of Finance to cover the export of selected services, including, among others, consultancy, management, construction, technical and engineering services. Under this Scheme, tax exemption will be granted on 90% of the qualifying export income over the pre-determined export base, with the remaining 10% subject to the prevailing full corporate tax rate. Although valid for

an initial period of 5 years, the relief may, nevertheless, be extended beyond this period upon application[129].

Loh (1985) suggests that the establishment of relevant contacts and project financing are among the most pressing needs of consultants, contractors and material suppliers sourcing for overseas business opportunities. In so far as the financial assistance rendered by the Singapore government in this direction is concerned, Loh (1985) has summarised five categories which may prove to be useful for the local construction industry :

1. At the domestic front : eg. the Preferential Margin Scheme.
2. Marketing Assistance : eg. the Market Development Assistance Scheme, the Construction Markets Information Service.
3. Overseas Tender Assistance : eg. the International Bidding Scheme.
4. Capital financing : eg. the Small Industries Finance Scheme; and
5. Repatriation of profits from abroad : eg. the Export of Services Incentive Scheme, double taxation agreements.

12.8.3. PAVING THE WAY AHEAD FOR CONSTRUCTION EXPORTS

Having set out to establish and maintain an environment which is conducive for Singaporean construction companies to export their services abroad, it remains for the government to co-ordinate this export effort and to continually provide the appropriate encouragement and impetus where necessary. With the global operating conditions changing continuously, the government's vigilant role in this direction does not appear to be static. It would seem that the creation of an aggressive international marketing awareness within the construction industry and the provision of both fiscal and non-fiscal incentives in this direction mark only the beginning of the government's involvement in assisting local construction firms procure foreign projects.

Chow (1988), speaking on behalf of the CIDB, has called on Singaporean contractors to heed three crucial factors in order to ensure the future competitiveness of their service offerings in the international market. Firstly, local contractors should make available competent project managers and engineers at relatively competitive wages. Secondly, the pursuit of quality construction works should continue, both actively and consciously. Thirdly, there should be a commitment to research and development if local contractors aspire to establish their presence in the international construction market. On their part, the CIDB aims to raise the competitiveness of the construction industry, upgrade the quality of construction in the coming years, and continues to promote the export of construction services[130]. In December 1985, the CIDB introduced the annual Excellence in Construction Awards. While according recognition to construction projects which have demonstrated a high standard of performance, these awards would also serve as an additional incentive for contractors to continuously upgrade their standards of workmanship, management and technical capabilities[131].

It would also appear that the CIDB has adapted its role continually for the betterment of Singaporean construction companies. The CIDB stressed in 1988 that business development will be a key corporate direction for the Board in the future. This was reflected by the Board's Chairman who emphasized that when the domestic industry was experiencing a buoyant market in 1984, the CIDB was more concerned with mechanisation and the long-term issues of foreign labour in Singapore. However, when the signs of an imminent downturn was evident in 1986, the Board has switched to the strategy of promoting exports. The Chairman[132] then went on to say that the

> "CIDB will be a more promotional than regulatory body. We want the CIDB to champion the business development of the construction industry. The fact is, without business, we wouldn't have a construction industry to talk about".

To stress its new role, the Industrial Development Division within the CIDB was redesignated in April 1988 as the Business Development Division. (This move towards a marketing orientation can be appreciated further by referring to the CIDB's original organisational structure depicted earlier in Figure 12.11). A Resource Panel was also set up by the CIDB in May 1988 to serve as a think-tank to the redesignated Business Development Division. Consisting of bankers, developers and civil servants, and chaired by the SCAL's President, the Resource Panel essentially sets out to achieve two primary goals :

1. To promote a larger share of the domestic construction market for local contractors; and
2. To improve the co-ordination of export promotion activities among financial institutions, developers, manufacturers, etc.[133].

## 12.9. THE MAJOR LOCAL CONTRACTORS

Singaporean contractors have a relatively short history compared to many of their foreign counterparts in countries like Great Britain, Japan and the United States. Many of the major local contractors in Singapore started only some 30 to 40 years ago as small family-run businesses. Some have, in fact, continued to remain in the control of family members even though their enterprises have now expanded tremendously in both the domestic and international markets[134].

There appears, however, to be five categories of origin for major local construction companies in Singapore :

1. Companies which initially begun as small family concerns but have developed over time into large enterprises[135].
2. Companies which came into being as a result of efforts made by a consortium of local contractors to pool their resources[136].
3. Companies formed by and with substantial backing from the Singapore government[137].
4. Companies incorporated as a result of a permanent joint venture between a local

company and a foreign company[138]; and

5. Construction companies whose financial backing came from companies outside of the construction industry[139].

The willingness of Singaporean contractors to expand their capital base for the export thrust overseas appears to be well demonstrated by the public listings of some of the largest local companies. Beginning in late 1983, the contractors concerned have hoped that their moves in this direction will help elevate them to the status of foreign corporations with large capital base, modern management techniques and diversified interests. By 1988, a total of six local construction firms were listed in the Singapore Stock Exchange with a total capitalisation of S$250m. In addition, seven others were subsidiaries of other listed companies with another capitalisation value of some S$700m[140]. The trend towards diversifications outside of construction has also taken place. As part of its ongoing diversification exercise, a major leading local contractor has even gone to the extent of acquiring the requisite share broking licence in 1988 to undertake stock broking activities[141].

With generous encouragement given by the Singapore government to upgrade and improve their operations, local building contractors seem to have responded positively by enhancing both their technological base and competitiveness. This appears to be borne out evidently in the first S$44m design-and-build contract awarded by the HDB in June 1984 which was won by a consortium of five local contractors. In winning the contract, the group beat 62 other contractors, including 17 foreign firms and 24 joint ventures between local and foreign contractors. Then again in November 1984, another leading local contractor beat some 40 other rivals - including top Japanese, Korean and Australian contractors - to clinch another HDB's contract[142].

It looks as if the inroads made by local contractors into foreign markets have been encouraging. While this has been made all the more attractive with government support, it would still appear that some of the larger local contractors have managed to perform relatively well in venturing overseas on their own accord. Mainland Investors (S) Pte. Ltd., another consortium of five local contractors, was the first case under the TDB's MDAS to secure the S$94m Jin-Cang Mandarin Hotel project in Shanghai[143]. At the international level, Singaporean contractors have also made their marks in 1986. In the Engineering News Records' rankings of the Top 250 International Contractors for 1986, two Singaporean construction companies were listed for the first time. Indeco Engineers Pte. Ltd. which undertook some US$70m in foreign construction works was ranked 147. Likewise, LKN (Pte) Ltd. with an export volume of US$60m was ranked 168[144].

## 12.10. THE RESULTS

The experiences of Singaporean construction firms in the international arena still appear to lag a long way behind those of their counterparts from the developed world who have launched into the global market on a large scale. In his exhortations of the

international construction opportunities for Singaporean contractors, Chow (1987a) notes that

> "Our forays into the international construction market began, in fact, in the seventies. Unfortunately, for many years the buoyant domestic market has meant that there was very little impetus for private firms to venture abroad. Over the last eighteen months, the slump in domestic demand has changed this. It has caused the trickle of firms seeking overseas work to increase to something resembling a stream. We have managed a few successes but we have had a few dashed expectations as well (Chow, 1987a:11)".

Chow (1987) also went on to say that there are four factors which will determine in a substantial way Singapore's construction export performance over the next few years. These are :

1. Marketing.
2. A shift to the traditional areas in which Singaporean construction firms can maintain a longer technical lead, eg. in urban planning, the design and management of building engineering systems, and interior design.
3. Increased attention towards enhancing the capabilities of Singaporean construction companies in the non-traditional areas, eg. in ports and airports development, industrial plants, utilities and infrastructural works; and
4. Provisions of attractive financial packages.

Between January 1980 and June 1986, the total volume of overseas contracts won by Singaporean construction firms amounted to some S$460m[145]. These were, however, predominately in the Asian region, with Asean accounting for the largest export market for Singaporean contractors. The distribution was Asean (37%), North Asia (34%), Middle East (19%), and South Asia (10%)[146]. Over the five years period between 1984 and 1988, Singaporean contractors have won over S$1.5 billion worth of foreign construction projects. The respective value for each year is tabulated in Table 12.8. An indication of the steady progress made by Singaporean contractors in the international market since the severe downturn of the domestic market in the mid-1980s has been depicted in Figure 12.12. (Detailed breakdown values for the export volume of Singaporean contractors before 1984 were not available).

In addition, although there has been a 9.5% shrinkage in the global construction market in 1987, the volume of export orders secured by Singaporean contractors, nevertheless, managed to increase by some 3.2%[147].

On the other hand, the Singapore government seems to be capable of lending further support to enhance the export volume of Singaporean construction companies through bilateral tied aid to other countries. The Singapore's US$5m aid package for the Philippines, pledged in 1986, for example, has opened up opportunities for Singaporean firms to work on airport development contracts in the Philippines[148].

While the progress in export volume achieved so far may appear to be the result of the marketing efforts put in by the Singapore government and the construction companies involved, the marketing concept, nevertheless, does not seem to have

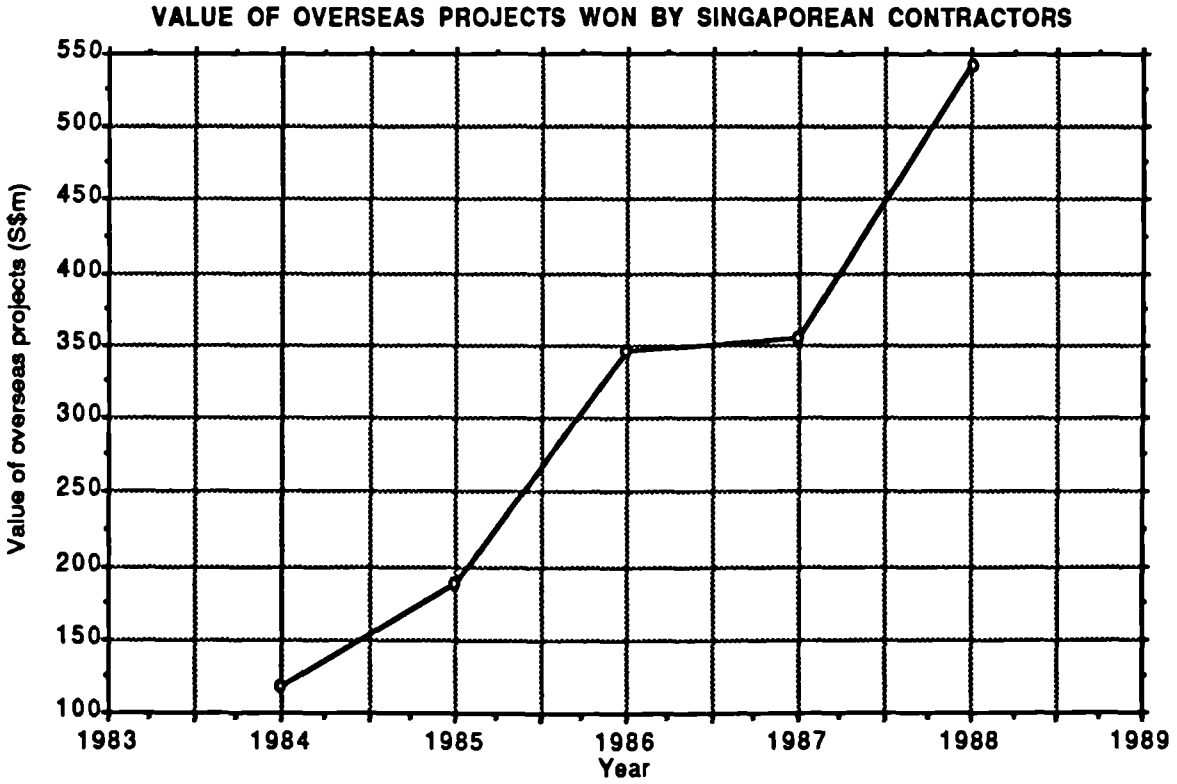
figured prominently in the latter. The adoption of a sporadic, ad hoc and one-off approach by the majority of Singaporean construction firms appears to be prevalent. This perhaps accounts for their neglect of marketing at the level of

| Year / Regions | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|
| Asia | S$118m | S$119m | S$329m** | S$183m | S$427m |
| South Pacific | - | - | - | S$155m | ) |
| Middle East | - | S$70m | S$17m | S$13m | ) S$116m |
| Others | - | - | - | S$4m | ) |
| Total | S$118m | S$189m | S$346m | S$355m | S$543m |

(** including a S$140m project in the PRC)

Source : "Singapore builders clinch $1b overseas projects"; The Straits Times Weekly Overseas Edition, 13 February 1988, p. 15.
Sharon Lau; "Record $543m of foreign building jobs won this year"; The Straits Times Weekly Overseas Edition, 4 March 1989, p. 18.

TABLE 12.8 : VALUES OF OVERSEAS PROJECTS WON BY SINGAPOREAN CONTRACTORS




Source : "Singapore builders clinch $1b overseas projects"; The Straits Times Weekly Overseas Edition, 13 February 1988, p. 15.
Sharon Lau; "Record $543m of foreign building jobs won this year"; The Straits Times Weekly Overseas Edition, 4 March 1989, p. 18.

FIGURE 12.12 : VALUE OF OVERSEAS PROJECTS WON BY SINGAPOREAN CONTRACTORS BETWEEN 1984 AND 1988

consciousness even though many of their so-called "selling" activities may well have been classifiable under the ambit of marketing - i.e. the management responsibility for identifying, anticipating and satisfying clients' needs at a profit. The responses culled by the CIDB in an opinion-survey of leading Singaporean contractors in November 1986 seem to lend credence to this observation. As a Chief Executive Officer[149], who represents a group of five leading local contractors, remarks,

> "In Singapore, so far, not many companies can afford to have a full-time marketing staff just looking for projects overseas. So most of the time, it is their senior staff who are sent overseas. For overseas projects, you need persistent follow-ups. But due to their other commitments in local projects, they have to just forget about it".

In a field survey carried out by the writer in Singapore between 28 September 1987 and 20 November 1987, similar responses were encountered. It would appear that Singaporean contractors were reluctant to invest in full-time marketing staff to procure foreign contracts for two reasons :

1. The greater uncertainty and risks of foreign contracts. Overseas markets are therefore looked upon only as a last resort; and
2. The perceived smallness of Singaporean construction firms in relation to their more established foreign counterparts.

Hence, while the latter can afford to set up and maintain even complete marketing departments, Singaporean contractors seem to believe that they have not yet developed to the stage where they can follow suit[150]. In response to the role question of marketing in his company's policies relating to the procurement of foreign contracts, the Managing Director[151] of one leading Singaporean contractor commented,

> "I don't think of marketing as a separate function. It may in the future. How can I have marketing as a separate complement. We are such a small company compared to say very huge companies. Then they have marketing managers all over the place. Occasionally, you may send a manager, but he is not a marketing manager. He may be an engineer. He may be a QS. But only for that purpose basically. ... That may be one-off, for instance, or you do it yourself. You could call that a marketing function which is mainly one-off. But you don't have a marketing manager. So as a separate function here, it is limited in scope. Of course, the big companies, the overseas companies, they have such functions".

The Executive Chairman of a consortium of five local leading contractors appears to echo a similar practice. In response to whether marketing managers or business development managers have been employed full-time by the consortium to track down foreign contracts, the Chairman[152] said,

> "Our company is still quite new. So what we do is make use of partners and directors to spearhead the project and after that, we will get our staff to follow up".

On the subject of marketing the Singaporean construction image abroad, Chow (1987a) notes that Singaporean firms have not placed as much emphasis on the refinement of marketing techniques for their construction expertise as the American and Japanese firms have been doing for quite some time. Nonetheless, Chow (1987a) has indicated marketing as an area which the CIDB will look into with earnest in the future.

12.11. A SYNTHESIS OF THE NATIONAL MARKETING EFFORT

A chronological approach has been attempted here to study the government's role in marketing Singapore's construction services overseas. The development in this direction understandably denotes a long-term perspective. While advocating an open-door policy to stimulate competitiveness among local construction companies, the Singapore government has also instituted numerous measures over the years to both encourage and help local contractors develop and upgrade their operational base. The ultimate appears to lie in the export of construction services by Singaporean contractors. From the analysis so far, it would seem that the general and specific steps taken by the Singapore government to assist local contractors have accordingly been synchronised to at least match the prevailing conditions of the day. During the boom years of the early 1980s, local contractors have been contented with working only in the domestic industry. The prevalent problems were then centred on the industry's heavy reliance on foreign labour and the unwillingness of local contractors to rationalise and mechanise their operations. Because there were enough jobs to go around, the influx of foreign contractors into Singapore did not seem to pose a serious threat to local contractors. While the Singapore Government has acted to rectify some of the more pressing problems of the industry, the measures taken were not in any way explicitly meant for the rigorous development of an eventual export market. Nonetheless, while this may have appeared to be so, the improvements accrued to the local industry as a result of governmental actions in this direction have helped sow the seeds for local contractors to compete abroad. By rendering assistance for improvements to the local contracting industry during the boom years of the early 1980s, it seems that the Singapore government has both indirectly and unintentionally prepared the groundwork for local construction companies to take-off into foreign markets. This has subsequently proved to be a crucial stage in the mid-1980s when the domestic construction market started to decline drastically after having remained in an extremely expansive mood between 1980 and 1984. The period after 1984 appeared to be a turning point which compelled many Singaporean contractors to look overseas in search of new markets to deploy their resources which have been built up rapidly during the boom years, partly through the government's encouragement and call for industrialisation.

There were two categories of Singaporean contractors who went in search of markets overseas. The first category belongs to those companies who are forward-looking and who have long regarded foreign contracts as a natural progression for their

diversification programmes. For these companies, although the maintenance of a domestic base is important, the need to diversify into new markets is considered equally critical. These companies recognised that the domestic market cannot go on expanding forever and that the only way to brace themselves for an eventual slowdown in domestic construction activities is to diversify overseas. The steps taken in this direction are, therefore, somewhat voluntary in nature and independent of the recent governmental calls to promote construction exports. Governmental assistance, although welcomed, does not, therefore, figure prominently here. The second group of companies belong to those who were content with the then buoyant domestic market and who have not taken comprehensive measures to counter the effects of an eventual slowdown in construction activities. These companies are inevitably the worst hit when the construction slump eventually sets in. With survival at stake in a dwindling domestic industry, their reactive attitudes have forced them to rethink their positions in the accommodating export market which ensued. However, given the limited time available to prepare the necessary groundwork and their lack of adequate in-house support, the companies in this category are likely to be those who turned to the government for help[153]. Export incentives and assistance, both financial and non-financial, offered by the government therefore appeared to be more crucial after the Singapore construction industry shrank rapidly in the mid-1980s following an equally impressive growth in the early 1980s. While there may be two categories of Singaporean construction companies who venture overseas, in so far as governmental assistance at the national level is concerned, no such distinction has been made nor considered desirable. Governmental assistance rendered in support of export promotion is made equally available to all eligible Singaporean construction firms.

In the case of construction exports by Singaporean contractors, two notable phenomena can be observed :

1. The export efforts of Singaporean construction firms intensified only in the mid-1980s when the domestic construction market shrank dramatically after an initial period of extremely rapid growth in the early 1980s.
2. Following the rapid downturn of the domestic construction market in the mid-1980s, the Singapore government appears to has instigated a series of marketing measures in quick succession to help local construction companies promote their services in foreign markets.

The government's explicit aspirations in promoting export marketing and international trade have also been particularly evident in recent years. In tandem with the unveiling of the government's blueprint to transform Singapore into the first developed city on the Equator by the end of this century[154], the Ministry for Trade and Industry, for example, has called on larger local companies to invest overseas as part of their growth strategy[155]. In support of this national marketing effort, the Ministry announced that the government will help them to globalise their

operations and, where necessary, take a stake in investments that can generate spin-offs for the Singapore economy. From a corporate perspective, internationalisation can help the firm to gain access to overseas markets and acquire new technologies to fuel further growth. If local companies were content only with investments in Singapore, then the scope for development will be severely restricted since there is a limit on the volume of new activities that the economy can readily absorb domestically. From the national economy's perspective, some companies must therefore venture overseas. To facilitate activities in this direction, the EDB has set up an International Direct Investment Unit in 1989 to help local businessmen look for promising investment opportunities overseas[156]. Singaporean companies were, however, encouraged to concentrate in "niche" areas rather than strike out in every direction. The EDB has thus taken on the role of Singapore's "Marketing Division" responsible for encouraging world class businesses to establish, expand and upgrade in Singapore[157]. The TDB, likewise, has focussed much attention on marketing Singapore's expertise and skills abroad. Both statutory boards have worked closely together to enhance the quality of life in Singapore as part of the goal set out in a national marketing strategy. At the time of writing, the Singapore Institute of Export, under the organisational framework of the TDB, is expected to be functioning by early 1990[158]. This will then help to enhance the working knowledge of local business executives in export marketing and international business.

The relentless drive to create an export marketing culture in Singapore has continued unabated to receive much attention following the organisation of a National Marketing Workshop in August 1989. Organised by the EDB, this workshop involved some 500 top civil servants and chief executives from the private sector charged with the tasks of identifying new strategies based on "the adoption of a marketing view of economic development"[159]. Theodore Levitt, leading marketing guru at Harvard University, was invited to this workshop to help Singapore develop a national marketing strategy and examine how Singapore can become a world-class business centre and a value adding partner in global business. Key strategic issues and approaches involved in national marketing were discussed and interpretations of Singapore's partnership approach to economic development offered[160]. Two months later, another conference on "Export Services '89" was organised by the TDB in October 1989. On this occasion, Warren Keegan - an acknowledged authority on international marketing from New York's Pace University - was invited to speak and advise on global marketing strategies for Singapore businesses[161]. At the time of writing, an exhibition (Theme : "Global Technopolis") and a conference (Theme : "Global Strategy") were also planned for June 1990. These events will serve to explore, amongst other things, how Singapore can become a world class business partner and how new partnerships between world class businesses can be fostered[162].

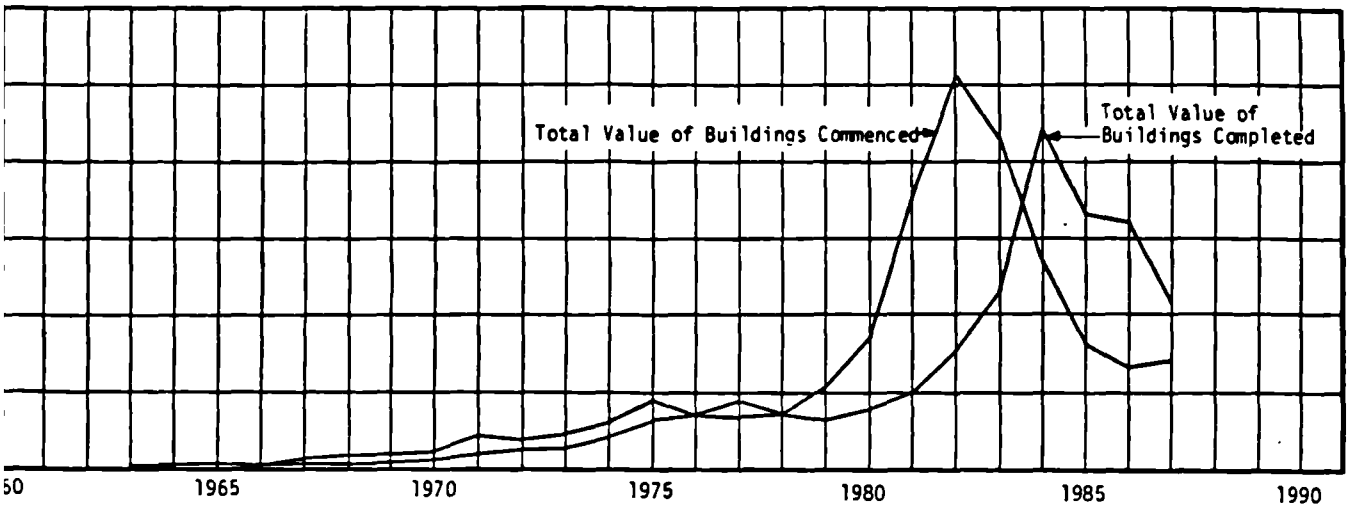
The search for quality has similarly been emphasised as an area for further

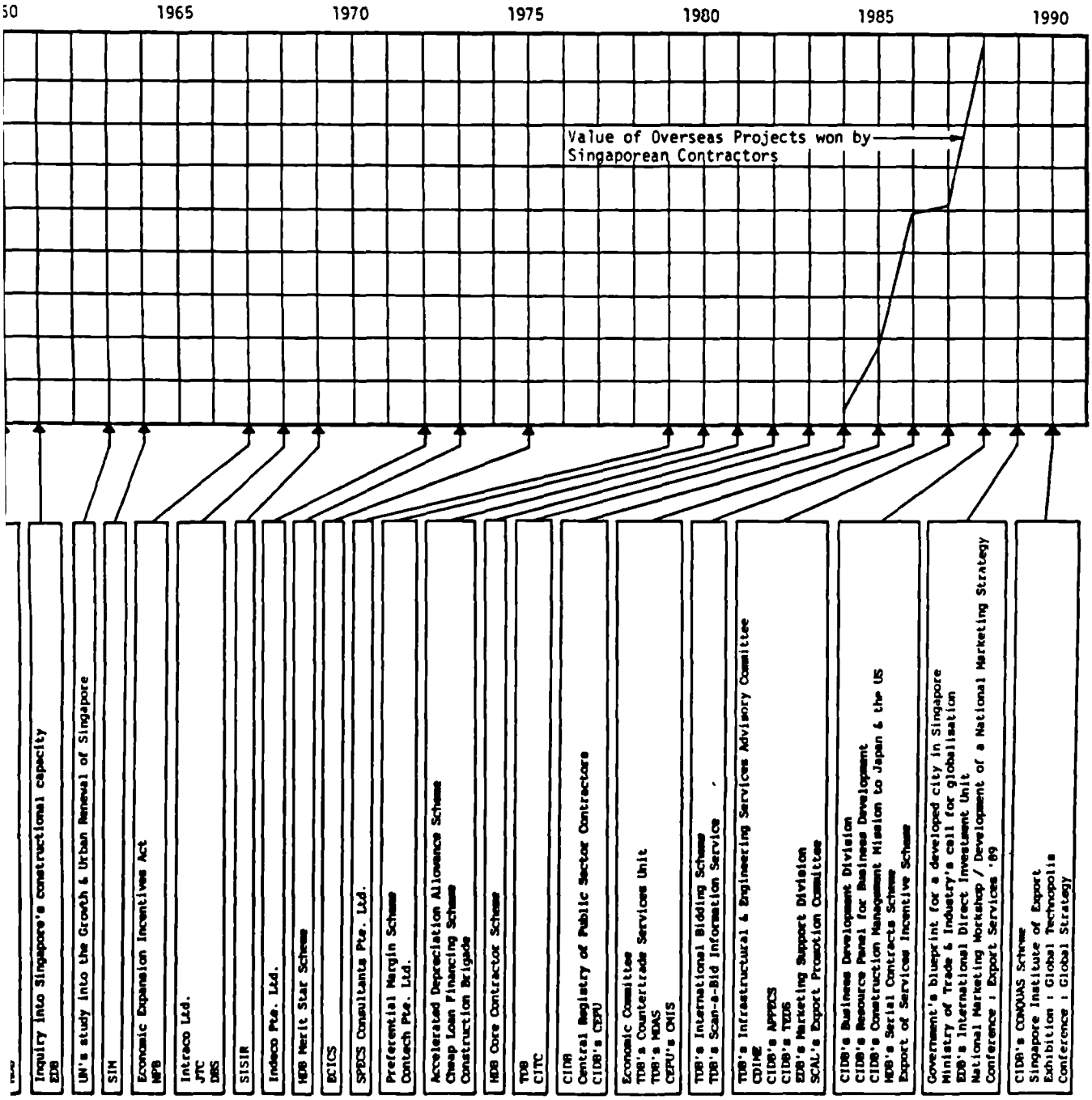
development before the export potentials can be fully harnessed. Towards this end, the government has announced the implementation of a preferential margin scheme for quality achievements in the construction industry. At the time of writing, this scheme is expected to be operating in January 1990. Under this quality encouragement scheme, preferential margins for government projects of up to a maximum of 5% of the tendered value or S$5m (whichever is lower) are allowed for local contractors who have attained the stipulated quality standards set down by the CIDB under the Construction Quality Assessment System (Conquas). When a contractor attains a mean Conquas score of more than 65 points for his last three projects, he can enjoy a preferential margin of 0.2% for every point scored above 65. These projects must, however, be undertaken within the last three years and have a minimum value of S$3m each[163].

A synthesis of all these developments over the years is depicted in Figure 12.13. From Figure 12.13, it can be observed that the dramatic rise and fall of domestic construction activities in the 1980s have been extraordinary under comparison with the previous two decades. Figure 12.13 also shows that the volumes of services exported by Singaporean construction firms have been rising since 1984. Lastly, and more importantly, it can be observed that the government's role in assisting and promoting construction exports from Singapore has also intensified in the 1980s. Compared to the 1960s and the 1970s, the Singapore government has evidently introduced and implemented more incentive schemes and marketing programmes in the 1980s, particularly during the slump period of the 1980s. While the last phenomenon may be attributed to the deliberate move to enter into another phase of planned development - to promote Singapore's total capability and pursue globalisation policies - the construction industry has, nonetheless, benefited as a result in so far as services export is concerned.

It is, however, not the intention here to suggest that the slowdown in the Singapore economy during the mid-1980s was the only causal reason which led to a national marketing effort for the export of construction services. Although Figure 12.13 seems to indicate a direct relationship between an increased volume of construction exports and the intensity of governmental efforts in international marketing, it would be misleading to suggest that an increase in the former has been caused solely by an intensification of the latter. While it remains difficult to correlate returns and national marketing efforts because of the influence of many other variables (for example, the contractors' own initiative), the analysis has nevertheless reflected a high level of pragmatism on the part of the Singapore government in this direction. However, the development of services export by Singaporean construction companies and the role played by the government can only be exemplary and not indicative of what actually exists in all other developing countries. At best, this case study can only be considered unique within the context of the Singapore construction industry. As Kaynak and Hudanah (1987) have argued,

FIGURE 12.13 : A SYNTHESIS OF BUILDING ACTIVITIES, CONSTRUCTION EXPORTS VOLUME AND PROMOTIONAL MEASURES IN SINGAPORE



> "Despite the similarities reported in various studies between marketing systems and the economic development of developing countries, there is still no strong evidence to believe that there are any two identical marketing systems in the world. The same could be said about the marketing practices of different firms in a given country; that is to say that their response to their economic environment can be expected to be different. Thus no consistent pattern of marketing response and practice emerges at a national level of developing countries (Kaynak and Hudanah, 1987:62)".

Kaynak and Hudanah (1987) went on to say that the educational efforts concerning the role of marketing and the training of marketing specialists are critical to the future economic development process in developing countries. Although marketing at times has been described as a passive, self-adjusting, self-generating mechanism, education and further training along marketing lines may eventually prove to be useful in the future if practitioners can be made to realise that what they are doing is in fact marketing. This is in spite of what Rodger (1965) has claimed that in marketing, businessmen have swiftly put principles into practice in advance of academic exploration into the subject. Baker (1987), likewise, has recognised that marketing is not a new concept and that every successful entrepreneur since time immemorial has been good at marketing even though he or she has remained oblivious of its existence. Zaltman, et. al. (1982) have observed that although we sometimes question why we behave the way we do, nevertheless, most of the time we just behave. A theoretical explanation for our behaviour in a particular aspect therefore often implies something which is abstract and, as an extension, unlikely to be helpful or relevant. Zaltman, et. al. (1982) continue on to concede that

> "few people ever bother or need to bother to identify the 'theories' they use in everyday life. Because of this, we are typically not conscious of the richness of our thoughts or the fact that we use theory daily (Zaltman, et. al., 1982:116)".

This, however, does not mean that theories which primarily describe events or activities are unlikely to be useful. On the contrary, such theories may be valuable for communicating accumulated knowledge about a particular phenomenon to persons who are inexperienced in the area of practice covered by the theory. In the light of this argument alone, an analysis of the Singapore construction industry undertaken in this Chapter may be justifiable in creating an awareness of marketing, in formalising a pragmatic approach and in increasing the knowledge of marketing at the national level.

Brooke and Remmers (1977) have argued that the environmental elements which shaped the marketing system of a society have often been taken for granted and that, similarly, the relationships between these elements and the prevailing marketing ideas have not been addressed nor understood properly. This appears to accord well with Bartels' (1962) view which claims that the tendency to observe, report and describe has typified the marketing discipline with the result that there were little

concern about hypotheses or assumptions implicit in the thought structures. Bartels (1962) then went on to maintain that progress in the conceptualisation and development of marketing thought can only be achieved by dealing consciously with the ideas of marketing rather than merely the activities of marketing. By way of illustration, Bartels (1962) has suggested that so long as exchange is obstructed by a given condition, it will be a function of marketing to overcome that obstruction or difficulty. Beyond that, the growth of any marketing structure is evolutionary, not revolutionary.

## 12.12. SUMMARY

The M-H Model was adopted as the basis for studying the development of the construction exports industry in Singapore. A chronological study of events in the Singapore economy and construction industry since independence was undertaken. This shows that the dramatic rise and fall in the domestic construction volume has a strong influence on the exports of Singapore construction services overseas. This review also shows the close relationship between economic growth in Singapore and the local construction industry. The role of the government in nurturing the economy was examined. A long-term general approach for the entire economy and specific measures for the construction industry were identified. The various incentive schemes, encouragement and statutory departments established in this direction were studied. Manpower shortages and the lack of expertise which can be exported were among the major problems in the Singapore construction industry. The efforts made to cultivate the export of construction services can be identified. The government has always maintained an open-door policy as opposed to discrimination against foreign firms in Singapore. Although the market share of Singaporean construction firms in the domestic industry have been eroded by foreign competitors, the calls for protectionist measures were rejected persistently by the government. This study shows that the export of construction services required not only perseverance but also long-term commitments on the part of both the government and the exporting companies. In the case of Singapore, developments in this direction have also been found to be related closely to the economy in Singapore. To export overseas, it is necessary to first put one's own house in order. In addition, the provisions of adequate infrastructural and marketing support services are equally important. The study of these events in Singapore was synthesized.

FOOTNOTES

1 See, for example, the arguments by Simon Kuznets, "Notes on the take-off"; in W. W. Rostow (Ed.), "The Economics of Take-off into sustained growth", Proceedings of a conference held by the International Economic Association, Macmillan, 1963, pp. 22-43.

2 See, for example, the contentions in the opening paragraphs of Paul H. Cootner, "Social Overhead Capital and Economic Growth"; in W. W. Rostow (Ed.), "The Economics of Take-off into sustained growth", Proceedings of a conference held by the International Economic Association, Macmillan, 1963, pp. 261-284.

3 Further details can be found in :
a. Information Division, "Singapore Facts and Figures 1988", Ministry of Communications and Information, 1988.
b. C. M. Turnbull, "A History of Singapore 1819-1975", Oxford University Press, 1977.

4 A more detailed account of the immigration stock in the earlier days can be found in C. B. Buckley, "An Anecdotal History of Old Times in Singapore", Fraser & Neave, Singapore, 1902. (Reprinted 1965, University of Malaya Press).

5 The origins of public utilities in Singapore were provided in Information Division, "Singapore 1988", Ministry of Communications and Information, 1988, pp. 162-163.

6 The term "Born Free" has been used by W. W. Rostow (1960) to describe countries which have shed themselves free of the colonial legacy. This is in contrast to another category of countries which are regarded as "General". Hence, Singapore, Malaysia, Australia, Canada, etc. are considered as "Born Free" countries. Great Britain and Japan, etc. are "General" countries.

7 "Singapore 1988-89", The Economic Intelligence Unit, 1988.

8 Tan Chin Nam, "Singapore's future economic challenges", The Mirror, Vol. 24 No. 23, Information Division, 1 December 1988, pp. 10-11.

9 Since 1967, the Economic Expansion Incentives Act has been amended substantially with new incentives introduced to reflect the more selective industrial strategy of the 1970s and 1980s. In the EDB Annual Report 1981-82, the Fiscal Incentive Schemes implemented include the Pioneer Status Scheme, Export Incentives, Investment Allowance, Warehousing and Servicing Incentive and International Consultancy Services Incentive (p. 37).

10 From "Singapore 1988-89", The Economic Intelligence Unit, 1988.

11 Ibid, p. 8.

12 CPF - Central Provident Fund : A form of State-administered Pension Scheme where both the employer and the employee contribute to the Fund.

13 Under the GSP Scheme, certain products from developing-country beneficiaries enter the United States duty-free. Following the graduation of January 1988, this tax-exempt status have been withdrawn from Hong Kong, Singapore, South Korea and Taiwan, effective from January 1989.

14 Shaun Seow, "EDB's key thrust for next year is quality, not quantity", The Straits Times Weekly Overseas Edition, 24 December 1988, p. 24.

15 The Singapore Improvement Trust which was set up originally in 1927 to improve housing conditions has outlived its usefulness in the post-Independence period because of its limited legislative powers.

16 The degree of success in the First Development Plan was reflected in "First Development Plan 1961-64. Review of progress for the three years ending 31st December 1963", Economic Planning Unit, Prime Minister's Office, Singapore, 1964.

17 The study, completed in November 1963, was carried out under the United Nations Technical Assistance Programme. For an edited version of this study, see "Growth and Urban Renewal in Singapore", C. Abrams, S. Kobe and O. Koenigsberger, Habitat International, Vol. 5 No. 1/2, Pergamon Press Ltd., 1980, pp. 85-127.

18 An account of how the government has supposedly made full use of their influential position in the construction industry can be found in the somewhat controversial paper "National ideology, technology and employment : the construction industry in Singapore", Barry Wilkinson, Chris Leggett and Somsong Patarapanich, New Technology, Work and Employment, Vol. 1, 1986, pp. 67-76.

19 This survey was published as "Commission of Inquiry into the Constructional Capacity of Singapore", Final Report, Singapore, 1961.

20 See "Action Plan for the Property Sector", Property Market Consultative Committee, Ministry of Finance, Singapore, February 1986.

21 This was used for the construction of the National Theatre on a trial basis in 1962. Its appropriateness was, however, found to be far from satisfactory.

22 As reported in the Straits Times, "Cheap Loans and Tax Incentives for Contractors", 29 September 1981, p. 1 and p. 38. In the case of the Accelerated Depreciation Allowance Scheme, the time period was originally reduced from 20 years to 6 years in the 1980 Budget. The further reduction to 3 years would therefore make mechanisation even more attractive. In the Cheap Loan Financing Scheme, the 10.75% rate charged to the "best" customers compares more favourably with the open-market rate of about 15%.

23 Under the Investment Allowance Scheme, if a construction firm incurs S$3m on approved equipment and is given an investment allowance of 30% under the Scheme, it would then be entitled to an investment allowance of S$900,000 (i.e. 30% of S$3m) to be offset against its taxable income.

24 Under the IGM Scheme, the interest cost of financing the purchase of approved plant and equipment by contractors may be reduced by a grant under the Skills Development Fund set up under the EDB. The grant is equivalent to 50% of the actual interest costs or the full amount of interest computed at the rate of 9% per annum on a pre-determined basis, whichever is the lower.

25 "HDB Annual Report 1986/87", Housing and Development Board, Singapore.

26 See "Three-in-one contract tender scheme", Southeast Asia Building, March 1988, p. 18.

27 Reported in :
a. "Contractors in Malaysia can expect bigger jobs", Business Times (Singapore), 13 August 1980, p. 2.
b. "Companies hiring South Koreans", Business Times (Singapore), 14 August 1980, p. 1.

28 "Shorter stint for building brigade men", Straits Times, 7 December 1985.

29 Training is conducted by the Construction Industry Training Centre, formerly under the Ministry of National Development and the Public Works Department. CIDB, however, appropriately assumed responsibility for the Centre after the

Board was set up in March 1984.

30 For more details, see Irene Ngoo, "Builders call for Central Authority to steer industry", Straits Times, 6 August 1981, p. 12.

31 The Board was constituted under the Construction Industry Development Board Act, 1984.

32 See "Builders want more government help on projects. They say they need good track record to win foreign jobs", Straits Times, 13 May 1987, p. 11.

33 See Yap M., "Move to tap Foreign Builders' Expertise", Straits Times, 3 May 1984, p. 11.

34 "Report on the 1975 Survey of Engineering Consultancy Services in Singapore", Ministry of Science and Technology, Singapore, 1976. The Survey involved the mailing of questionnaires to 116 engineering consultancy firms selected from both the Singapore Builders' Directory and Telephone Directory. 74 completed questionnaires were returned (63.8% response rate).

35 Reported in Lim H. L., "PM talks to the South Korean media. How to ease pressure in our major markets and help ourselves", Straits Times, 30 June 1986.

36 Reported in Lim H. L., "Western World does not welcome new Japans", Straits Times, 28 June 1986.

37 The conference "Global Strategies : The Singapore Partnership" was attended by more than 1,000 business executives from mainly MNCs with operating interests in Singapore. Reported in "Free trade or wars ?", Singapore Bulletin, November 1988, p. 3.

38 IFAWPCA is in turn a member of the Confederation of International Contractors' Associations (CICA). The CICA membership includes many other International Contractors Federations from other regions of the world. IFAWPCA is based in the Philippines.

39 Reported in "IFAWPCA News : WB, ADB React Favourably", Asia Pacific Contractor, June 1987, p. 70. On 26 August 1986, the ADB introduced its domestic preferential scheme on civil works contracts for low-income countries. A preferential rate of 7.5% will be extended, if so requested by the Borrower, to eligible contractors in Afghanistan, Bangladesh, Bhutan, Burma, China, Kampuchea, Cooks Islands, India, Kiribati, Sri Lanka, Tonga, Vanuatu, Vietnam and Western Samoa.

40 From "Asean Constructors Federation : Objectives", The Contractor, Singapore Contractors Association Ltd., 1985.

41 This was documented in "Asean : The first 20 years", Asean Secretariat, Jakarta, Indonesia, 1987, p. 107.

42 Reported in "Asean contractors want more government projects", Straits Times, 19 December 1985.

43 Reported in "Daim promises contractors more jobs", Straits Times, 13 July 1986. The ruling in the offer, however, excludes projects financed by foreign loans and works that lack local expertise.

44 See Yap M., "Builders want a bigger share. Reserve tenders of up to $20m for us", Straits Times, 31 January 1985.

45 Reported in "Contractors want more jobs. Appeal for a 'fairer' share in letter to Brig-Gen Lee", Straits Times, 2 August 1985.

46 Reported in "Civil Works : Foreign firms get the lion's share", The Contractor, Vol. 4 No. 1, Singapore Contractors Association Ltd., January 1986, p. 1.

47 See Editorial comments on "Need to re-examine our priorities", The Contractor, Vol. 4 No. 1, Singapore Contractors Association Ltd., January 1986, p. 3.

48 Breakdown of contract values sourced from "Share of the MRT pie : Percentage of MRT contracts awarded by nationalities", The Contractor, Vol. 5 No. 1, Singapore Contractors Association Ltd., January 1987, p. 4.

49 The case of Active Building and Civil Contractor can be found in :
a. Nora Cheng, "China wants venture with Lum Change", Straits Times, 6 November 1985. Lum Chang, another leading Singaporean construction company, was then contemplating acquiring Active who has several projects in China. This, however, did not go through.
b. Yap M., " 'Top 20' List of builders is published", Straits Times, 15 October 1985.

50 Reported in "Builders here confident of holding their own ground", Straits Times, 9 July 1981. See also "Builder says boom has dulled the urge to compete", Straits Times, 9 October 1981.

51 The implications of these measures are discussed in "Report of the Services Sub-committee : Five more bad years predicted for builders", Straits Times, 19 January 1986.

52 Reported in "Fund likely to spawn $1.4b foreign projects. Details on use of revolving sum to help building firms abroad", Straits Times, 29 November 1985.

53 Information compiled from the "Directory of Singapore Building Professions", Trade Development Board, Singapore, April 1986.

54 See, for examples :
a. Lim C. and Ong N. P., "Singapore Construction Industry : A case for support of local firms", unpublished report prepared for the Singapore Contractors Association Ltd., November 1985.
b. Lin K. C. and Toh M. H., "The viability of the construction sector in the Singapore economy", unpublished report prepared for the Singapore Contractors Association Ltd., August 1986.

55 These studies were first undertaken in 1984 but were subsequently updated and revised again in November 1985. See "A Comparative Study on financial structure and performance of foreign construction companies and local construction companies in Singapore", 1 November 1985, unpublished report prepared by T. W. Ong Management Services Co. for the Singapore Contractors Association Ltd. The study encompassed an examination of the accounts of ten Japanese and ten local construction firms of comparable size in Singapore between 1979 and 1983.

56 These issues are highlighted in "Put a stop to unfair tactics", The Contractor, November / December 1985, Singapore Contractors Association Ltd., pp. 6-7.

57 See, for examples :
a. Keys P., "The other side of the 'tender' coin", What's new in Building, May 1985, p. 64.
b. Lee L., "Local contractors wondering why Japanese builders in the red for 10 years", Business Times (Singapore), 17 May 1985.
c. Lee L., "Performance of Japanese builders under scrutiny", Business Times (Singapore), 16 November 1985.

58 For details of this appeal, see Yap M., "Builders want a bigger share. Reserve tenders of up to $20m for us", Straits Times, 31 January 1985.
For details of the latest Malaysian ruling, see report in "Daim promises contractors more jobs", Straits Times, 13 July 1986.

59 The measures include bringing forward some 200 public sector jobs worth about S$4.2 billion. See details in "Contractors want more jobs. Appeal for a 'fairer' share in letter to Brig-Gen Lee", Straits Times, 2 August 1985.

60 The joint venture between Hyundai Engineering and Construction Ltd. and Jurong Engineering Ltd. (JEL) submitted a bid of S$320m which is some 24% or S$77m lower than the bid submitted by a consortium of local contractors. While Hyundai is a wholly-owned South Korean company, JEL, on the other hand, is backed by the Japanese firm of Ishikawajima-Harima Heavy Industries. Temasek Holdings, a Singapore government investment holding company, controls some 23% of JEL with the rest being held by both private and foreign investors. There were, likewise, some accusations that the joint venture was able to win the contract because JEL was a government-backed company. See reports in :
a. Ilene Aleshire, "Airport terminal job goes to Hyundai-JEL", Straits Times, 4 January 1986, p. 34.
b. S. Kumar, "JEL stake in airport terminal project worth $70m to $80m", Straits Times, 10 January 1986.

61 Details of the Ministry's exhortations can be found in "Why local builders lost bid for airport job", Straits Times, 30 December 1985.

62 See report in "Blueprint vital for future of construction industry", Straits Times, 7 January 1986.

63 a. "Minister Teh troubled by sore thumb", Business Times (Singapore), 3 August 1981, p. 1.
b. "'Change your image' call to builders", Straits Times, 3 August 1981, p. 1 and p. 70.

64 See reports in :
a. Agnes Wee, "Architects call for incentives", Business Times (Singapore), 30 December 1981, p. 1.
b. "Helping architects to expand overseas", Business Times (Singapore), 30 December 1981, p. 6.
c. "Overseas projects can help keep architects busy", Straits Times, 31 December 1981, p. 11.

65 See report by Catherine C. Ong, "Architects to appeal to Chok Tong. Petition to ask that Singaporeans be given all public-funded projects", Straits Times, 29 October 1985.

66 See report in "Aim for share of overseas projects, building consultants told", Straits Times, 28 January 1985.

67 Catherine C. Ong, "Architects form group to export services. Move by 9 firms likely to set trend for corporate approach to business", Straits Times, 9 April 1986.

68 Agnes Wee, "Go-ahead for architects, engineers to team up. Soon they'll be allowed to pool their resources to form bigger companies", The Straits Times Weekly Overseas Edition, 16 April 1988.

69 The general role of the Singapore government in the national economy can be found in the "Investors' Guide to the Economic Climate of Singapore", and "Singapore 1988-89", The Economic Intelligence Unit, 1988.

70 See report in "Mission to bring back essence of Japanese Marketing Skills", Straits Times, 19 March 1982.

71 See report by Anne Koh, "Incentives for exports sought. Sub-committee proposes setting up of an Exim bank among other concessions", Straits Times, 14 January 1986.

72 See article by Karen Au-Yong, "Big Push for the Small", The Mirror, Vol. 23 No. 6, Information Division, 15 March 1987, pp. 6-7.

73 See reports in :
a. "Institute On International Marketing Training Committee", Marketing News, Marketing News, Marketing Institute of Singapore, June-August 1987, p. 16.
b. "Programmes in international marketing", Risk Focus, Export Credit Insurance Corporation of Singapore Ltd., August / September 1987, p. 7.

74 Remarks reported in "Why Japanese company picked Singapore", Straits Times, 3 July 1986.

75 From the Chairman's Message in "EDB Yearbook 1987/88", Economic Development Board, Singapore, p. 8.

76 Reported in "EDB sets up new unit to help local firms become MNCs. Move to encourage companies expand abroad", The Straits Times Weekly Overseas Edition, 24 September 1988, p. 24.

77 Reported in John Tan, "EDB sets up experts' panel to help firms penetrate world market", The Straits Times Weekly Overseas Edition, 17 December 1988, p. 19.

78 From the Chairman's Message in "EDB Yearbook 1987/88", Economic Development Board, Singapore, p. 7.

79 From "Singapore 1988-89", The Economic Intelligence Unit, 1988.

80 Reported in "New Thrust For TDB", Tradespur, Trade Development Board, Singapore , January 1987, p. 8.

81 Reported in "TDB to go on sales offensive. Missions planned to capture new markets and push export of professional services", Straits Times, 10 January 1986.

82 The information here is compiled from leaflets detailing the "Market Development Assistance Scheme" and the "Market Development Assistance Scheme for Small Business", published by the Trade Development Board, Singapore.

83 Reported in "Scan-A-Bid to Win a Bid", Tradespur, Trade Development Board, Singapore, May 1986, pp. 2-3.

84 Reported in "TDB Annual Report 1986/87", Trade Development Board, Singapore, p. 24.

85 See reports in :
a. Tan Yew Soon, "Countertrade : The alternative deal", The Mirror, Vol. 22 No. 8, Information Division, 15 April 1986, pp. 4-5.
b. Anne Koh, "Countertrade : Guidelines soon on perks, pioneer status", Straits Times, 5 July 1986.
c. Hsung Bee Hwa, "Countertraders to get 5-year tax exemption. Trade Board moves to lure international companies here", Straits Times, 17 July 1986.
d. "How countertraders can qualify for pioneer status", Straits Times, 17 July 1986.
e. Pioneer Incentive for Countertrade Services", Tradespur, Trade Development Board, Singapore, August 1986.

86 See report in Shaun Seow, "New moves to boost exports", The Straits Times Weekly Overseas Edition, 10 December 1988, pp. 1 and 24.

87 See report in "S'pore to stage Asia-Pacific export services show", Singapore Bulletin, June 1988, Information Division, p. 12. (This event will feature an exhibition as well as a conference on international marketing.)

88 This information has been compiled from the following literature :
   a. "Banking on Export Credit Insurance", ECICS's leaflet.
   b. "The Comprehensive Short-Term Policy", ECICS's leaflet.
   c. "The Specific Policy, Bond Issue Support, and Overseas Investment Insurance", ECICS's leaflet.
   d. "Export Credit Insurance", The Mirror, 1 June 1985, Information Division, pp. 6-7.
   e. Lee Yoke Meng, "The risks of long term exports. Economic and political changes are important considerations", Business Times (Singapore), 11 November 1985.

89 Reported in "ECICS sets up two specialised factoring companies", Risk Focus, Export Credit Insurance Corporation of Singapore Ltd., June / July 1987, p. 2. These are the International Factors (Singapore) Pte. Ltd. and the International Factors (Marine) Pte. Ltd.

90 See reports in :
   a. "The contracting construction field - 1984 Review", What's new in Building, December 1984 / January 1985, p. 44.
   b. "Construction Activity in Singapore - A TV interview", The Contractor, Singapore Contractors Association Ltd., March 1985, pp. 4-5. (This report summarised the main points raised by the Assistant General Secretary of the Singapore Contractors Association Ltd. during an interview on 15 February 1985 in the Friday Background programme televised by the Singapore Broadcasting Corporation.)

91 Reported in "Action Plan for the Property Sector", Property Market Consultative Committee, Ministry of Finance, Singapore, February 1986.

92 See reports in :
   a. Judy Tan, "PWD boost for private sector. $82m worth of projects to be farmed out", Straits Times, 31 October 1985, p. 10.
   b. "$700m boost for building industry. PWD package over and above $1b plan announced last year", Straits Times, 9 August 1986.

93 The Singapore government announced its decision to implement the S$5b MRT project in May 1982 after more than a decade of feasibility studies and public debates. The first MRT civil contract was awarded on 14 September 1983 to the Tobishima-Takenaka Joint Venture. Reported in "Annual Report 1982/83" , The Provisional Mass Rapid Transit Authority (PMRTA). The PMRTA itself was only set up in July 1980. See also report in Chris Sherwell, "The fight for Singapore's underground", Financial Times (UK), 25 January 1984.

94 See reports in :
   a. "JTC Embarks on $55m Building Programme", Real Estate News, April / May 1988, The Real Estate Developers' Association of Singapore, p. 2.
   b. Patience Tay, "$55m Flatted Factory Building Programme", The CIDB Review, April-June 1988, Construction Industry Development Board, p. 49.

95 See reports in :
   a. "Indeco Services In Demand", Business Times (Singapore), 11 February 1981, p. 1.
   b. "Taking a leaf from Indeco", Business Times (Singapore), 11 February 1981, p. 6.

96 Reported in "'Selling' services abroad. SPECS has eyes on major overseas projects. Team up to get overseas projects", The Mirror, 15 October 1985, Information Division, pp. 1, 9-10.

97 See reports in :
   a. "Good to foster competition", Business Times (Singapore), 14 November 1980, p. 6.
   b. Agnes Wee, "Diversification is the name of the game. As the construction boom

ends, local contractors have to diversify. Automated building services and prefabrication are options open to them", Singapore Business, December 1984, pp. 21-22.

98 See report in Peter Hazelhurst, "Singapore offers to transfer its expertise", Straits Times, 27 June 1986. The theme of the Symposium was "Towards the Establishment of an Asia-Pacific Economic Network - In Anticipation of the Emergence of a High-Level Information Society". More than 300 delegates, both businessmen and government officials from nations on the Pacific Rim, attended this meeting in Tokyo.

99 See report in "Contractors told not to build too high hopes and to look for growth elsewhere", Straits Times, 19 February 1987.

100 In Editorial comments, "Making it internationally", The Contractor, Vol. 5 No. 4, Singapore Contractors Association Ltd., May 1987, p. 2.

101 See report in "New Committee formed to promote exports", The Contractor, Vol. 5 No. 5, Singapore Contractors Association Ltd., June 1987, p. 8.

102 This emphasis has been raised in a speech given by the Second Deputy Prime Minister at the 50th anniversary dinner of the Singapore Contractors Association Ltd. on 14 January 1988. See report in "A Call To Quality Construction", The CIDB Review, April - June 1988, Construction Industry Development Board, pp. 23-24.

103 See report in "Dhanabalan unveils CIDB logo", The Contractor, Vol. 5 No. 14, Singapore Contractors Association Ltd., June 1988, p. 1.

104 See report in "Building industry to spruce up image", Singapore Bulletin, Information Division, July 1988, p. 6.

105 See report in "Dhana : Vast overseas market for HDB's expertise", The Straits Times Weekly Overseas Edition, 5 November 1988, p. 2.

106 See report in "Cash grant scheme to help develop export markets", Tradespur, Trade Development Board, Singapore, October 1985, p. 7.

107 See reports in :
a. Anne Koh and Hsung Bee Hwa, "Group eyes China projects. TDB grant for five professional bodies in tie-up", Straits Times, 26 October 1985.
b. "MDAS for Promotions in PRC", Tradespur, Trade Development Board, Singapore, December 1985, p. 5.
The group comprises the Association of Consulting Engineers, Institution of Engineers (Singapore), Singapore Institute of Architects, Singapore Institute of Planners, and the Singapore Institute of Surveyors and Valuers.

108 See report in Hsung Bee Hwa, "Isles of sea and sun and maybe business done", Straits Times, 4 July 1986.

109 See reports in :
a. "Grants for Overseas Bidding", Tradespur, Trade Development Board, Singapore, February 1987, p. 3.
b. "TDB helps firms clinch overseas deals. Grants help meet high biddings costs", Straits Times, 4 November 1987.
c. "With TDB's help", Singapore Bulletin, Information Division, December 1987, p. 8.
Mainland Investors (S) Pte. Ltd. is a consortium of five leading local contractors : Hoe Huat Construction and Engineering Pte. Ltd., L & M Prestressing Pte. Ltd., Low Keng Huat Construction Pte. Ltd., Metrobilt Pte. Ltd., and Ong Chwee Kou Building Contractors (Pte) Ltd.

110 Reported in "TDB Annual Report 1986/87", Trade Development Board, Singapore.

111 Reported in "CIDB Annual Report 1984/85", Construction Industry Development Board, p. 12.

112 See report in "Building material suppliers to explore opportunities in China", Business Times (Singapore), 13 February 1985.

113 Reported in "The Singapore Manufacturer", May - June 1986, Singapore Manufacturers' Association, pp. 2-3.

114 See report in Anne Koh, "Follow through with business opportunities - Boon Yang", Straits Times, 19 April 1986.

115 Reported in "TDB Annual Report 1985/86", Trade Development Board, Singapore.

116 See reports in :
a. "Firms get advice on World Bank projects", Straits Times, 16 September 1986, p. 13.
b. "$460m projects won overseas. Competition getting tougher, contractors told", Straits Times, 17 September 1986, p. 12.

117 See report in "Singapore at IBEX 87", Tradespur, Trade Development Board, Singapore, April 1987, p. 3.

118 Reported in TDB's diary of events, "What's on", Tradespur, Trade Development Board, Singapore, April 1987, p. 7.

119 See booklet on "Singapore Mission on Construction Management to Japan and USA", Construction Industry Development Board, 9-21 November 1988.

120 From "Introduction to the Construction Industry Development Board", in "CIDB Annual Report 1984/85", Construction Industry Development Board, p. 6.

121 From "Construction Markets Information Service (CMIS)" leaflet issued by the Construction Industry Development Board.

122 See reports in :
a. "Local contractors to get help in competing abroad", Business Times (Singapore), 31 May 1985.
b. Gurdip Singh, "Singapore restructures board", Asian Building & Construction, August 1985, p. 19.

123 From "Construction Exports Advisory Service", leaflet issued by the Construction Industry Development Board.

124 See report in "Tap Govt's experience before it is lost. Wide-ranging expertise can be developed and exported", Straits Times, 30 November 1985.

125 See reports in :
a. Ilene Aleshire, "Four-point govt plan to help contractors. Aim is to get more overseas jobs and also more renovation work", Straits Times, 5 December 1986.
b. "Centre for local contractors", Singapore Bulletin, Information Division, May 1988, p. 11. (Proposals have been made to house the Centre for Advanced Construction Studies in the School of Civil and Structural Engineering at the Nanyang Technological Institute. Through postgraduate programmes, staff from contracting companies will be equipped with the knowledge to tender for overseas projects and in obtaining project financing for ventures overseas.)
c. Davie S. and Chua C. J., "NTI will offer more places as full varsity : Tie-up with MIT and other world institutions also planned", Straits Times Weekly Overseas Edition, 24 February 1990, p. 7. A Master of Science degree programme in International Construction Management will also be offered in July 1990 by the Nanyang Technological Institute (to be renamed the Nanyang

Technological University in 1991.)

126 From "APPECS : Sourcing Technical Experts" leaflet issued by the Construction Industry Development Board. See also announcement in "The APPECS Scheme", The CIDB Review, April - June 1987, Construction Industry Development Board, p. 15; and also "APPECS : Strengthening the technical capability of construction firms in overseas works", The CIDB Review, April - June 1988, Construction Industry Development Board, pp. 10-11.

127 See report in "Contractors clinched $355m in overseas orders", Singapore Bulletin, Information Division, May 1988, pp. 11-12.

128 See reports in :
a. Chng Soh Koon, "Breaking New Ground", The Mirror, Vol. 23 No. 14, Information Division, 15 July 1987, pp. 7-12.
b. "Tenders Estimating Data Service (TEDS)", The CIDB Review, April - June 1988, Construction Industry Development Board, p. 58.
The cost data are collated by the CIDB from local quantity surveying firms, management consultants and contractors who have offices or undertaken projects overseas. Two categories of cost data are available - the Material and Labour Cost Data (for basic items and labour costs), and the Schedule of Unit Rates for Work Items (for building works). The countries covered under the TEDS include Abu Dhabi, Australia, Bahrain, Brunei, Fiji, Hong Kong, India, Indonesia, Korea, Malaysia, New Zealand, Pakistan, Philippines, Qatar, Saudi Arabia, Taiwan, United Kingdom, USA and Western Samoa.

129 See report in "Latest Announcement on Tax Incentives for the Export of Services", The CIDB Review, April - June 1987, Construction Industry Development Board, p. 22.

130 See report in "Prof Cham named as CIDB head", The Straits Times Weekly Overseas Edition, 16 April 1988.

131 See reports in :
a. Lisa Lee, "Steps taken to ensure building industry will not see dusk. Contractors face another tough year", Business Times (Singapore), 10 March 1987, p. 8.
b. "The CIDB Awards for Construction Excellence", The CIDB Review, January - March 1988, Construction Industry Development Board, pp. 21-26.

132 Quotations from "Focus on business development is vital, says CIDB Chairman", The Contractor, Vol. 5 No. 14, Singapore Contractors Association Ltd., June 1988, pp. 1 and 10. (Professor Cham Tao Soon, President of the Nanyang Technological Institute, chairs the CIDB in 1988.)

133 See report in "Resource Panel aims for bigger local market share", The Contractor, Vol. 5 No. 14, Singapore Contractors Association Ltd., June 1988, pp. 1, 3 and 10.

134 See reports in :
a. Matthew Yap, "'Top 20' list of builders is published. Ranking based on last year's earnings", Straits Times, 15 October 1985.
b. Peter P. Walker-Smith, "CIDB Top 20 Local Construction Companies", The CIDB Review, October - December 1986, Construction Industry Development Board, pp. 31-33.
c. Peter P. Walker-Smith, "CIDB Top 20 Local Construction Companies", The CIDB Review, October - December 1987, Construction Industry Development Board, pp. 5-8.

135 Examples include, among others, Lum Chang Building Contractors Pte. Ltd., Lee Kim Tah (Pte) Ltd., and Lim Kah Ngam Ltd. All three were listed among the CIDB Top 20 Local Construction Companies in 1984, 1985 and 1986.

136 Examples include Hytech Builders Pte. Ltd. which was formed by Hock Chuan Ann Construction, Eng Hup Heng Construction, Evergreat Construction, Job Associates and Tan Gim Huat Contractors. Formed only in late 1982, Hytech Builder Pte. Ltd. was listed in the CIDB Top 20 list in 1985.
Mainland Investors (S) Pte. Ltd. was, likewise, formed by another five leading local contractors - Hoe Huat Construction and Engineering Pte. Ltd., L & M Prestressing Pte. Ltd., Low Keng Huat Construction Pte. Ltd., Metrobilt Pte. Ltd. and Ong Chwee Kou Building Contractors (Pte) Ltd. - to undertake foreign projects, mainly in China.
See also report in Matthew Yap, "Contractors join hands to go abroad. Doing business in China, Malaysia, Indonesia and Sri Lanka", Straits Times, 4 January 1985.

137 Notable examples of government-backed construction companies include :
a. Contech Pte. Ltd. - incorporated in 1980 with 100% government shareholding.
b. RDC Construction (Pte) Ltd. - incorporated in 1982 with 100% government share-holding.
Both companies were included among CIDB's list of Top 20 local contractors in 1984, 1985 and 1986.
For a list of state-owned enterprises, see Hafiz Mirza, "Multinationals and the Growth of the Singapore Economy", Croom Helm, 1986, pp. 114-119.

138 The most notable example of a permanent joint venture of this nature is Kumagai-Zenecon Construction Pte. Ltd., a link-up between a Japanese company and a Singaporean company. Kumagai-Zenecon Construction Pte. Ltd. was included in both the 1985 and 1986 lists of the Top 20 local contractors compiled by the CIDB.

139 Metrobilt Pte. Ltd., another leading local contractor, obtained the initial financial back-up from Metro who owns a chain of departmental stores throughout Singapore. Metro's offer to go into a joint building construction venture provided the impetus for the setting up of Metrobilt Pte. Ltd.
Metrobilt Pte. Ltd. was included in the CIDB's lists of Top 20 Local Construction Companies in 1984, 1985 and 1986.
See also report by Gillian Pow Chong, "What it takes to be an entrepreneur", Straits Times, 21 August 1986. (An interview with the Managing Director of Metrobilt Pte. Ltd.)

140 L & M Prestressing Pte. Ltd. was the first Singaporean construction company to go public in late 1983. See also report in "A Call to Quality Construction", The CIDB Review, April - June 1988, Construction Industry Development Board, pp. 23-24.

141 See reports in :
a. Conrad Raj, "Lum Chang agrees to buy City Securities' share broking licence", The Straits Times Weekly Overseas Edition, 6 February 1988, p. 18.
b. "Metro move to go into stockbroking", The Straits Times Weekly Overseas Edition, 30 July 1988, p. 19.

142 See report in Matthew Yap, "Local builders win $44m do it your way deal", Straits Times, June 1984.

143 See report in "Mainland Investors win hotel deal", Singapore Bulletin, Information Division, February 1987, p. 6.

144 See Engineering News Record, "Top 250 International Contractors for 1986", McGraw-Hill, 1987. See also Engineering News Record, "Directory of Contractors", McGraw-Hill, 7th Edition, 1987/88.

145 Value culled from Chow Kok Fong, "International Construction Opportunities", The CIDB Review, January - March 1987, Construction Industry Development Board, pp. 11-12.

146 Breakdown figures culled from Chng Soh Koon, "Breaking New Ground", The Mirror, Vol. 23 No. 14, Information Division, 15 July 1987, pp. 7-12.

147 See report in Agnes Wee, "Singapore builders clinch $1b overseas projects. 21 contractors gain foothold in 14 countries", The Straits Times Weekly Overseas Edition, 13 February 1988, p. 15.

148 See report in Abby Tan, "S'pore set to start aid to Manila soon", The Straits Times Weekly Overseas Edition, 17 December 1988, p. 11.

149 Quotation extracted from Peter P. Walker-Smith, "Construction Prospects in 1987 - Annual Opinion Survey Of Construction Prospects", The CIDB Review, January - March 1987, Construction Industry Development Board, pp. 5-9. (Quote cited on p. 9.)

150 During the fieldwork mounted by the writer in Singapore between 28 September 1987 and 20 November 1987, interviews were carried out with local contractors, and senior officers of the Construction Industry Development Board, and the Singapore Contractors Association Ltd.
Although the sample size for the contractors was too small to allow any meaningful generalisation to be drawn, on the whole, the entire exercise has provided the writer with a formidable insight of how the concept of marketing has been positioned within the industry in so far as international contracting is concerned. More importantly, it has availed the writer of an opportunity to learn how some of the leading contractors interviewed practised marketing management. It must however be stressed again that it has never been the writer's intention to generalise the marketing practices of Singaporean contractors from this fieldwork alone.

151 This interview was carried out on 14 October 1987. The company concerned has been listed in the CIDB's list of Top 20 Local Construction Companies.

152 Conducted on 10 November 1987, the interviewee was also at one time President of the Singapore Contractors Association Ltd. The consortium of five local contractors has been particularly active in China and the surrounding Asian region.

153 These at least appeared to be the feelings of senior officers from the Construction Industry Development Board whom the writer interviewed in late 1987. The somewhat complacent and reactive approach portrayed by the second group of companies do not seem to have earned the sympathy of government officials. This perhaps accounts for the reason why repeated calls for protectionist measures were rejected.

154 See reports in :
a. Henson B. and Ibrahim Z., "Blueprint for a developed city on the Equator : Quality homes even with population of 4 million if there is proper planning", Straits Times Weekly Overseas Edition, 16 September 1989, p. 9.
b. "Dhana unveils plan to make S'pore Equator's first developed city", Straits Times Weekly Overseas Edition, 16 September 1989, p. 24.

155 "Go global, large local firms urged : Government ready to help and may even take a stake in ventures abroad, says BG Lee", Straits Times Weekly Overseas Edition, 22 April 1989, p. 24.

156 "Striking out overseas", Straits Times Weekly Overseas Edition, 22 April 1989, p. 12.

157 "Be part of the Singapore Economic Development Team", Straits Times Weekly Overseas Edition, 22 April 1989, p. 22.

158 "Director to head export institute", Singapore Bulletin, July 1989, p. 6. A Diploma

course in Export Marketing was planned for March 1990 in conjunction with Niels Brock School of International Business, Copenhagen, Denmark. See also announcement in "Excellence in developing human resources in Exports", Singapore International Marketing Training Programme Calendar, CDIME, Vol. 3 No. 4, October 1989, p. 1.

159 "All out to 'sell' Singapore", Singapore Bulletin, June 1989, p. 7.

160 "Harvard guru to help S'pore develop marketing strategy", Straits Times Weekly Overseas Edition, 10 June 1989, p. 15.

161 Subramaniam S., "Singapore ideal for regional HQ business, says marketing guru", Straits Times Weekly Overseas Edition, 28 October 1989, p. 19. See also announcement in "Export Services International '89", Singapore Trade News, May / June 1989, p. 5.

162 See calendar of events in The Straits Times Weekly Overseas Edition, 18 November 1989, p. 8. Also "1,000 coming for Global Strategies Conference", Straits Times Weekly Overseas Edition, 17 February 1990, p. 7.

163 "New government move to get better-quality buildings", Straits Times Weekly Overseas Edition, 11 November 1989, p. 5.

REFERENCES


1 Baker M. J. (Ed.), "The Marketing Book", Heinemann, 1987

2 Bartels R., "The Development of Marketing Thought", Richard D. Irwin Inc., 1962.

3 Brooke M. Z. and Remmers H. L. (Eds.), "The International Firm", Pitman Publishing Ltd., 1977.

4 Buckley C. B., "An Anecdotal History of Old Times in Singapore", Fraser & Neave, Singapore, 1902. (Reprinted 1965, University of Malaya Press.)

5 Cateora P. R., "International Marketing", 5th Edition, Richard D. Irwin Inc., 1983.

6 Chow K. F., "Shaping up for the 1990's", Asian Building & Construction, September 1984, pp. 35, 38-39. (Transcript of an interview with Chow Kok Fong by the Asian Building & Construction.)

7 Chow K. F., "Steps to help Singapore's flagging industry", Building and Construction News, 22 April 1987, p. 4. (Report of an interview conducted by the Building and Construction News with Chow Kok Fong.)

8 Chow K. F., "International Construction Opportunities", The CIDB Review, January - March 1987a, Construction Industry Development Board, pp. 11-12.

9 Chow K. F., "Construction Exports : Singapore's Performance", The CIDB Review, April - June 1988, Construction Industry Development Board, pp. 5-8.

10 Dawson J. A., "The Marketing Environment", Croom Helm Ltd. (London), 1979.

11 Economic Committee, "The Singapore Economy : New Directions", Ministry of Trade and Industry, Singapore, February 1986.

12 Foo C. P., "Embassy officials says there is no undercutting. Singapore largest market for Japanese contractors", Business Times (Singapore), 11 April 1985.

13 Ganesan S., "Development of Construction industry in Singapore", in "Management of Small Construction Firms", Asian Productivity Organisation, Tokyo, 1982, pp. 43-70.

14 Hui, W., "International Marketing Practices and Host Country Export Promotion Efforts : Some Potential Conflicts", in "Multinational Corporations and their implications for Southeast Asia", Current Issues Seminar Series No. 1, Institute of Southeast Asian Studies, Singapore, February 1973, pp. 33-53.

15 Information Division, "Problems facing the industry", The Mirror, 1 August 1984, p. 4.

16 Kaynak E. and Hudanah B. I., "Operationalising the Relationship between Marketing and Economic Development : Some Insights from Less-Developed Countries", European Journal of Marketing, Vol. 21 No. 1, 1987, pp. 48-65.

17 Keegan W. J., "Multinational Marketing Management", 3rd Edition, Prentice-Hall, 1984.

18 Keys P., "Hope for S'pore builders", What's new in Building, February 1985, p. 40.

19 Kotler P., "Megamarketing", Harvard Business Review, March - April 1986, pp. 117-124.

20 Kotler P., "Marketing Management. Analysis, Planning, Implementation and Control", Prentice-Hall, 1988.

21 Lim C. and Ong N. P., "Report on Singapore Construction Industry : A case for support of local firms", unpublished report prepared for the Singapore Contractors Association Ltd., November 1985.

22 Lim T. C. P., "Construction in the Eighties", IOB Yearbook, Institute of Building (Singapore Centre), 1980, pp. 99-102.

23 Lim T. C. P., Lim C. N., and Smith J., "Review of Construction Techniques and Mechanisation in Singapore", Professional Builder, Vol. 1 No. 3, August 1984, pp. 25-29.

24 Lim, J., "An unwanted promotion", Singapore Business, Vol. 12 No. 3, March 1988, p. 6.

25 Liu T. K., Lau W. C., and Loh C. T., "New Towns in Singapore", in Yeung Y. M. (Ed.), "A Place to live : More Effective Low-cost Housing in Asia", International Development Research Centre, 1983, pp. 27-47.

26 Loh, R., "A Position Paper on the planned development of the construction industry", unpublished paper prepared for the Construction Industry Development Board, 1985.

27 Loh, R., "An Analysis on Singapore Construction Service Exports", unpublished paper prepared for the Construction Industry Development Board, September 1985a.

28 Moavenzadeh F. and Hagopian F., "Construction and building materials industries in developing countries", TAP Report 83-19, Massachusetts Institute of Technology, Cambridge, Massachusetts, August 1983.

29 Moavenzadeh F. and Hagopian F., "The construction industry and economic growth", Asian National Development, June / July 1984, pp. 56-60.

30 Ofori, G., "The Construction Industry in the economy of Singapore", Professional Builder, Vol. 1 No. 3, August 1984, pp. 3-7.

31 Ofori, G., "Managing construction industry development", Construction Management and Economics, 1985, pp. 33-42.

32 Ofori, G., "The Potential of The Construction Industry Development Board", Professional Builder, Vol. 2 No. 1, May 1985a, pp. 4-7.

33 Ofori, G., "Construction industry and economic growth in Singapore", Construction Management and Economics, 1988, pp. 57-70.

34 Ofori, G., "Housing in Singapore : determinants of success and lessons for the developing countries", Construction Management and Economics, Summer 1989, pp. 137-153.

35 Ofori, G., "The Singapore Construction Industry : An analysis of current problems and possible solutions", The Professional Builder, Vol. 4 No. 1, September 1989a, pp. 21-27.

36 Ong C. C., "Free flow of talent urgd. Competition helps, economic panel tells local businessmen", Straits Times, 18 February 1986.

37 Oral History Department, "Singapore Lifeline. The River and its people", Books International , 1986.

38 Property Market Consultative Committee, "Action Plan for the Property Sector", Ministry of Finance, Singapore, February 1986.

39 Quek S. P., "Contractors need strong base before looking overseas", Business Times (Singapore), 4 August 1984.

40 Raj C., "Oh Teck Thye placed in the hands of receivers", Straits Times, 13 February 1987, p. 24.

41 Rodger L. W., "Marketing in a competitive economy", Cassell / Associated Business Programmes (London), 1965.

42 Rostow W. W., "The Stages of Economic Growth", Cambridge University Press, 1960.

43 Seah R., "Local Contractors rule supreme", Business Times (Singapore), 1 November 1985.

44 Singh G., "Contractors threatened", Asian Building & Construction, August 1985, p. 21.

45 Tan, J., "PWD boost for private sector. $82m worth of projects to be farmed out", Straits Times, 31 October 1985, p. 10.

46 Tan L. B. B., "The case of Construction Industry in Singapore", unpublished Advanced Study Project for MBA, School of Postgraduate Management Studies, National University of Singapore, 1985a.

47 Tan S. C., "The Role of Government in Export Promotion", in AIESEC Symposium 1975 on Export Promotion, 29 November 1975.

48 Teh C. W. and Yeoh H. H., "The Housing and Development Board and the Building Economy", in Chow K. F. et. al. (Eds.), "Construction Practice and Economy in Singapore", Proceedings of the 2nd BEMS Annual Seminar, November - December, 1973, pp. 60-72.

49 Wong, J., "Japan's role in the Asia-Pacific : The economic dimensions", The Mirror, Vol. 24 No. 18, Information Division, 15 September 1988, pp. 13-14.

50 Woodsworth N., "Africa's peasantry stranded as dreams of growth ebb away : rural people who are heading back into history", Financial Times, 1 November 1989, p. 4.

51 World Bank, "The Construction Industry : Issues and Strategies in Developing Countries", World Bank, 1984.

52 Zaltman G., LeMasters K. and Heffring M., "Theory Construction in Marketing : Some thoughts on thinking", John Wiley & Sons Inc., 1982.

CHAPTER THIRTEEN

# ORGANISATION OF MARKETING IN INTERNATIONAL CONSTRUCTION FIRMS - THEORY

## 13.1. INTRODUCTION

Having dealt with the relevance and importance of the marketing concept within the context of international construction, it would be appropriate now to examine how and to what extent this has been put into practice in the industry. An investigation of the organisational aspects would serve to demonstrate the degree to which marketing has manifested among the activities of firms involved with international construction works. The adoption of an approach of this nature will then be able to shed some light on the following three enquiries :

1. Firstly, with specific reference to international construction firms, is there an organisational role for marketing within the industry ?
2. Secondly, how do international construction firms organise their marketing activities within their own institutional framework ?
3. Thirdly, what are the theoretical underpinnings which provide the basis upon which organisational structuring of marketing activities may take place within international construction firms ?

Organisational issues can rank importantly in this respect if the problems of misinterpretations, internal stresses, lack of action and a failure to exploit market opportunities are to be avoided. Since inappropriate structures lead to inappropriate action, Spillard (1985) has argued that marketing failures are frequently caused by a mismatch between task and organisation. However, notwithstanding this understanding, Spillard (1985) has also maintained that there has been little attention directed towards a concentrated study of this nature. In many instances, most existing marketing texts tend to deal with this subject in a superficial manner, often accompanied by the ritual organisation charts and work specifications. A possible reason for this lack of interest in the literature, as Spillard (1985) suggested, could perhaps lie in the problem of having to design structures to take into account the maze of determinants peculiar to each specific organisation and market. At best, the organisational design problem should, therefore, be left to the person responsible for the case in question. Ruekert, Walker Jr., and Roering (1985), similarly observed that a wide range of alternative structures have commonly been described or advocated without giving due consideration to their relative advantages under different operating conditions. There is also a lack of conceptual development or empirical evidence which shows how marketing management operates in developing appropriate organisation structures. Where empirical studies exist, Piercy (1986) recognises these to be limited in scope and that in so far as the received body of organisation theory is concerned, this has not been utilised to any significant extent in the marketing literature. Again, Piercy (1986) suggests that this dearth of analytical marketing literature may be due in part to the difficulties faced in delineating standardised organisation structures. The vacuum in the relationship

between marketing and organisation theories, as Piercy (1986) reasons, therefore offers ample potentials for some respectable exploratory studies.

## 13.2. ORGANISATION ISSUES AND IMPLICATIONS

Before proceeding further to examine the relationship between organisation theories and marketing practices, it would be useful here to clarify the meanings and implications of some of the more common terms one is likely to encounter in the management literature.

Koontz (1961), in his much acclaimed "Management Theory Jungle", concluded that management is the art of :

1. Getting things done through and with people in formally organised groups.
2. Creating an environment in such an organised group where people can perform as individuals and yet cooperate towards the attainment of group goals.
3. Removing obstacles to such performance, and
4. Optimising efficiency in effectively reaching goals.

Koontz (1961) therefore argued that the right approach to management theory should not be overly unwieldy as such an approach is unlikely to lead to quantum advances in knowledge. An appropriate management theory must recognise that it is part of a greater universe of knowledge and theory.

At a much narrower level, Pugh (1971) has addressed the organisational aspects of management theory and had accordingly defined organisation theory as,

> "the study of the structure, functioning and performance of organisations and the behaviour of groups and individuals within them (Pugh, 1971:9)."

In effect, organisation theory is the body of knowledge which addresses the problem of how to organise. Spillard (1985) recognises an organisation to be a structural instrument within which a group's activities and functions can be managed, decided, planned, executed and controlled. Division of labour to procure the specialisation required is a basic feature of organisations in their pursuit of efficiency. Organisations are therefore structured not only to facilitate this but also to enable controlled integration to take place so that the organisation concerned can work as a single entity and, in the process, resolve any conflict which may ensue as a result of opposing interests. Child (1977), likewise, expects a structure to formally allocate people and resources to the tasks which need to be done, and provide the mechanisms necessary for their coordination. This represents the official perspective, one in which management can lay emphasis upon in structural designs and arrangements. However, such an approach points to the inherent deficiency in that the contextual presence of unofficial structures are subsequently ignored. Child (1977) consequently warned of the fallacy and danger in adopting a purely technical approach in structural design implementation when, in effect, a political one exists. Furthermore, structures do occasionally become victims to politics and if political forces are not reflected accordingly within the organisation, effectiveness will be

grossly weakened. Child (1977) went on to conclude that although there are many structural alternatives to select from, the choice is not simply a technical one. Rather, the implicit preferences of an organisation's dominant coalition have similarly to be accounted for. Nonetheless, Child (1977) has recognised the readiness in adopting the official approach at the outset and had suggested that the six components of an organisation structure which must be considered along these lines are :

1. The allocation of tasks and responsibilities to individuals.
2. The designation of formal reporting relationships.
3. The grouping together of individuals in sections or departments.
4. The delegation of authority.
5. The design of systems to ensure effective communications, and
6. The provision of systems for performance appraisal and reward.

In a treatise on the establishment of marketing structures for firms within the construction industry, Friedman (1984) simply acknowledges organisation structures as plans which determine who reports to whom as well as who works with whom. Kast and Rosenzweig (1985) similarly regard structures as the established patterns of relationships among the component parts of organisations. As such, it may also be useful to think of structure as the bridge between an organisation's external environment and its internal sub-units. Organisations, as Drucker (1977) sees them, serve as the means to an end rather than an end in itself. Likewise, Drucker (1977) accepts organisations to be far from perfect. In so far as they are considered unwieldy, they are still the only tools society has to achieve its set objectives. An appropriate structure gained through organisation design, in Lorsch's (1977) opinion, is therefore management's formal and explicit indication to organisation members as to what is expected of them. Huse (1980) accordingly suggests that the three main influences on organisational structure and design are size, technology and environmental effects. However, no consensus yet exists as to which of these influences is more important to organisation design. Kast and Rosenzweig (1985) have perceived them to be all interdependent and interactive, and that in so far as their cause-and-effect relationships are concerned, uncertainty still prevails. In dealing with the conceptual framework for organising international firms, Majaro (1982) even went as far as to suggest that certain organisational styles may have been selected by firms both knowingly and by accidents without even comprehending both their corresponding short and long-term implications.

## 13.3. TRADITIONAL APPROACHES TO MANAGEMENT THEORIES

From the literature search carried out within the context of this thesis, there appears to be two main approaches to traditional management theories, namely, the Classical Approach and the Human Relations Approach. While there may be some other minor versions of management theories, it was felt that these are nonetheless built upon the two main foundations of both the Classical and Human Relations Approaches.

Both schools of thought need to be invoked if organisation design is to proceed along some well established conceptual framework. These will be dealt with as follows, albeit briefly.

13.3.1. THE CLASSICAL APPROACH

As its name implies, the Classical Approach is the earliest school of thought to be developed and popularised. Classicists such as Taylor, Fayol, Gantt and their disciples are among the earlier proponents of what have now came to be known as the "scientific management" approach. The Classical Approach adopts a "rational" perspective in organising work, where authority and responsibility are clearly delegated and tasks well defined in advance. Within the core of scientific management lies the organised study of work, where activities are analysed into their simplest component parts and workers' performance within the context of each component part is systematically improved to continually achieve higher levels of productivity through time and motion studies. Formal organisation becomes the order of the day in the Classical Approach with the establishment of an official reporting hierarchy, often pyramidal in form, within the organisation structure. Organisation design principles are therefore well thought out by the classicists where alternative modes of organising companies are set out in readily recognised formal structures.

Piercy's (1986) development of an organisational perspective on marketing had revealed that relatively little utilisation has been made of organisation theory in existing marketing literature apart from those associated with the classical and administrative theorists. While Piercy (1986) has recognised the existence of the classical theories, the human relations approach, the sociotechnical models and the contingency theories within the framework of his concern, he stresses that the bulk of the literature produced which relates to marketing organisations is, nevertheless, grounded in classical theories. These are predominately concerned with :

1. The division of labour and decentralisation in the marketing department.
2. The formal, specific responsibilities of marketing executives.
3. The development of detailed role specifications.
4. Authority and responsibility, and
5. Line and staff relationships.

Argyris (1960) similarly regards organisations as human strategies designed to achieve organisational goals and objectives. As such, creators of organisations are inclined to adopt structures which they believe represent the best strategy for their organisations. The first requirement of this strategy, Argyris (1960) argues, is for the organisation to be rational in making rational demands on its employees. Hence, the formal structure is considered useful here because it can help to provide the initial rationality for an organisation. Provided the intended formal structure works well, any organisational analysis could well end here. Unfortunately, this does not appear to be the case. As Argyris (1960) points out, the intended rationality adopted by an organisation, more often than not, has frequently succumbed to the disruptive

effects of deviationist human factors.

13.3.2. THE HUMAN RELATIONS APPROACH

The Human Relations school of thought came to be recognised within the management discipline following the breakthrough in what has now came to be known as the Hawthorne experiment. Whereas the Classical Approach attempts to provide for every conceivable eventualities in as rational a manner as possible, the Human Relations Approach tends to suggest that, in reality, this generally falls short of behavioral expectations. While works may be allocated in a formal organisation in the classical approach, this virtually ignores the intricate networks and relationships between various organisational sub-groups and their members within them.

The same phenomenon, undoubtedly, exists in organising the marketing function. As Spillard (1985) points out, although the numerous sub-systems within an organisation are designed to contribute in their own ways toward overall goals, some will inevitably espouse sub-goals of their own. Burns (1963) has explained that an individual member of a concern is not only committed to the organisation as a whole. In addition, he belongs to a group or department within that organisation which may have sectional conflicts with other groups in so far as all the individuals involved are concerned with their relative positions within the organisation, and where future security and career betterment are of marked importance to those affected. Pfeffer and Salancik (1977), in their expositions on organisation design, have recognised these phenomena and consequently went on to propose two models - the Rational Model and the Coalitional or Political Model - to account for them. The Rational Model assumes that all organisational issues can be defined unambiguously and that information can be adequately obtained to yield a rationally planned organisation structure. The Rational Model has similarly been adopted by both the earlier theorists looking for a single best way to organise as well as the more contemporary theorists who recognise that different situations call for different structures. Pfeffer and Salancik (1977) went on to suggest that the assumptions and management ideologies encompassed within the Rational Model are so reasonable that most people virtually take them for granted. On the other hand, the Coalitional Model is not so explicit. Pfeffer and Salancik (1977) maintained that the information available within the Coalitional Model is limited to only serving or justifying the decisions or positions already taken. Rationality within this Model can only be inferred to gain a better understanding after the fact has occurred. In short, organisation designs within the Coalitional Model are frequently left unplanned. Rather, the structures are expected to evolve in response to the outcomes of the contests among various interests for control over the organisation. In their "Behavioral Theory of the Firm", Cyert and March (1963) have first recognised the impinging effects of both external and internal agents on the organisation, each with different expectations and sets of criteria for evaluating organisational

performance. In essence, they regard organisations as coalitions of varying interests which exist to serve the interests of those who control and initiate organisational actions.

The effect of strategies on structures has also generally gained much acceptance following the pioneering work of Chandler (1962). Nonetheless, while strategic concerns have been brought, as a result, to the forefront of structural design, Doyle (1979) has criticised such an approach for underestimating the constraints imposed by the aspirations of different organisational participants. In essence, Doyle (1979) argues that organisations must adapt to the people, both directly and indirectly, who are in contact with the organisations concerned. In a search for organisational decision-making models in marketing, Piercy (1986) has cited the works of Pfeffer (1981) who puts forth four dimensions for consideration; namely, the Rational Model, the Bureaucratic Model, the "Organised Anarchy" Model, and the "Political Power" Model. Similarly, Piercy (1986) has expressed some concern over the traditional approaches to studying marketing organisations when, in their reliance on formally charted positions and relationships, the informal interactions between people are categorically ignored. In so far as a political analysis of organisations is concerned, Pfeffer (1981) suggests that the neglect in this direction could perhaps be due to the fact that it presents an uncomfortable concept for both managers and management theorists in their search for ideological rationality rather than irrationality, and optimising rather than satisficing in decision-making. In this context, Piercy (1986) believes that marketing organisation provides a potentially fruitful but yet untried area for political analysis. In considering the budget provision for marketing, Piercy (1986) concedes that the decision made may be partly political in its own right, reflecting, in the process, conflicts over whose preferences are to prevail in the determination of policy. The marketing budget accordingly records the outcome of this struggle.

## 13.4. ORGANISATION STRUCTURES

Having dealt with the two main schools of thought - the Classical Approach and the Human Relations Approach - frequently referred to in organisation design, this section looks at the various alternatives where their applicability may have surfaced. Before delving into the numerous structural options available in organisation design, some of their wider implications will first be considered.

### 13.4.1. SOME WIDER IMPLICATIONS

Within the context of organising marketing programmes, Kotler (1988) has noted two levels of administrative implementation; namely at the Company Organisation level and the Marketing Organisation level. As a result of operating in a highly dynamic environment, Cundiff and Hilger (1984) contend that the organisation structures and the people within them will tend to change correspondingly so that there is a tendency for organisation charts to describe historical relationships rather than the current reality. Gilligan and Hird (1986) similarly maintain that the structures

adopted by companies tend to reflect their histories, past and present preferences, management culture and expediency. Nonetheless, a formal organisation structure remains an important prerequisite to both carry out and coordinate all the necessary activities. A historical perspective appears to provide Mintzberg (1979) with the impetus for proposing the five evolutionary stages of structural development; namely :

1. The craft stage.
2. The entrepreneurial stage.
3. The bureaucratic structure.
4. The divisionalised structure, and finally
5. The matrix structure.

Mintzberg (1979) has noted the presence of strong evidence to suggest that as organisations grow, they go through a process of structural transitions which appear to be changes in kind rather than degree. The purpose of departmentation as a result of these structural transformations is not meant to restrict flexibility by building a rigid structure. Rather, as Koontz and Weihrich (1988) have argued, the main aim of departmentation is to avail an organisation of the facilities available to group resources in a manner consistent with the achievement of organisational goals.

On the other hand, Doyle (1979) reasons that structure is only one among the four sets of variables which interact with the complex operating environment to determine a company's performance - the other variables being technology, people and strategy. As a result, both an over-emphasis and oversimplification of the effect structure has on performance would appear to be inappropriate. Doyle (1979) consequently argues that mere organisational restructuring alone may not necessarily solve the complex and multifaceted problems of corporate deficiencies. Additionally, because organisational effectiveness operates within a complex system, it is difficult to isolate directly the influence of alternative organisation structures on performance. Baker (1979) seems to concur with this point when he concedes that a firm's organisation structure is critical to marketing success but that, as yet, there has been no one single "best" organisation structure of universal applicability. Baker (1979) continues on to suggest three criteria for designing an appropriate structure, focusing on an approach which :

1. Firstly, permits the maximum use of any specialist knowledge.
2. Secondly, provides the most efficient use of plant and machinery, and
3. Thirdly, provides the best hope of attaining the required control and coordination.

Along these lines, Majaro (1982) has advocated a conceptual framework for analysing the input and control requirements in a firm. This divides a firm into three distinct levels; namely, the Strategic level, the Management level and the Operational level. While personnel at the Strategic level are responsible for setting a firm's corporate

policies and long-term goals, those at the Management level have the responsibility of translating corporate objectives into functional objectives and for ensuring that the firm's resources are directed toward the pursuits of these goals. At the firm's lowest hierarchical level, Operational staff are responsible for carrying out tasks which underlie the effective achievement of functional objectives. Majaro (1982) went on to explore the three distinct types of organisational options available to firms involved in or contemplating involvement with international business. The Macropyramid model has a "nerve-centre" with responsibilities at strategic, management and operational levels. Activities under the charge of foreign offices embody only management control and operational tasks. Strategies are therefore formulated at the home office to be carried out at overseas operational outposts. In the Umbrella model, the organisational set-up is undertaken with an understanding that markets differ in their requirements and, hence, must be approached with a certain degree of local independence and freedom. Strategic decisions are therefore made by each individual overseas office within the confines of broad objectives set down by Head office in the home country for the entire corporation. In addition, the home office's "nerve-centre" now provides supporting central services and assistance to branch offices in other countries. In the case of an Interglomerate (derived from the term "international conglomerate") model, Majaro (1982) has highlighted the absence of both the management and operational levels from the home office's "nerve-centre". This means that the "nerve-centre" is now only concerned with strategic decision-making and the setting out of corporate objectives. Foreign branch offices may then be structured either on the Macropyramid model or the Umbrella model.

13.4.2. THE STRUCTURAL OPTIONS AVAILABLE

Depending on the objectives of a firm, the rational approach to structuring provides several alternatives to organising the firm's available resources. Within the context of international firms, Brooke and Remmers (1977) suggest that foreign operations and responsibilities may be organised functionally, geographically, by product groups and by matrix organisations. Doyle (1979), on the other hand, progresses a step further to advocate the functional, divisional, matrix and complex structures. In complex structures, matrices are extended further to yield a three-dimensional perspective. Similarly, while Majaro (1982) highlights six organisational options (i.e. by functions, product groupings, markets or customer groupings, geographical groupings, channels of distribution and matrix approach) available for international marketing, Baker (1979) likewise advocates the organisation of marketing departments in any one of seven basic orientations; namely, functional, product, market/customer, regional, functional/product, functional/market, and functional/regional. It can be observed that the alternative options opened for organising marketing activities may become progressively more complex as one moves from a domestic market into the international arena with several product /

service offerings. Koontz and Weihrich (1988), in identifying ten basic patterns of departmentation, have undoubtedly highlighted the diverse range of alternative arrangements put into practice. Departmentation, Koontz and Weihrich (1988) noted, can be organised on the basis of simple numbers, time, functions, geographical regions, customers, process or equipment, products, matrix organisations, strategic business units, and any of the above combinations.

Because of the large numbers of organisational options available, there is therefore a need to explore every alternative in general terms since each option has its own strengths and weaknesses under different sets of circumstances. As Majaro (1982) maintains,

> "Before one can organise or reorganise for international marketing, the manager responsible for this task must look at as many options as possible, chart them on paper and try to list the advantages and disadvantages of each. Being methodical and painstaking in exploring alternatives normally pays dividends in the form of fewer problems and obviously better performance (Majaro, 1982:242)".

In similar veins, Spillard (1985) argues that the popularity of regional and product-based divisions may well be due to their relative ease in coping with growth by simply replicating additional divisions rather than face the daunting task of having to maintain a delicate balance in splitting up functions or entire systems. On the other hand, Baker (1979) has noted the inherent problems of communication, coordination and duplication of efforts in regional marketing organisations. As a result, Baker (1979) goes on to suggest that some firms have, in their endeavour to overcome these defects, adopted a line and staff approach which seeks to combine the benefits of a functional structure with the flexibility offered by different product and market divisions. This, in effect, represents a shift towards matrix and complex structures, a phenomenon which has been recognised by Doyle (1979) who subsequently considered functional structures to be efficient in their deployment of specialist resources but weak in integrating complex businesses. Divisionalised structures, on the other hand, provide effective integration, but at the expense of functional specialisation. Matrix structures, it would therefore appear, can reap the benefits of both organisational orientations in having a single set of functional departments as well as divisional structures to facilitate integration. Despite its supremacy over other simpler structures, the matrix organisation suffers from inherent disrepute in situations where authority and delegation are not clearly defined.

Within the context of construction where competition is tough and technology highly differentiated and equally complex, Spillard (1985) reasons that matrix patterns can be correspondingly significant in organisations involved with construction. It would seem, as Baker (1979) has pointed out, that although there is much variation in degree, the basic structural choice has fundamentally revolved

around organising activities either on the basis of products or functions.

## 13.5. A CRITIQUE OF TRADITIONAL MANAGEMENT THEORIES IN ORGANISATION DESIGN

This chapter has so far dealt with the two traditional approaches to management theories, namely the Classical Approach and the Human Relations Approach. The utilisation of relevant management concepts in charting rational organisation structures has also been examined. However, the task of designing appropriate organisation structures using concepts from traditional management theories, it would seem, is flawed with numerous difficulties. A familiarisation tour of the various schools of management thought alone can create immense confusion, let alone attempts to both adapt and apply their concepts for solving complex business problems. This phenomenon may well have been reflected by Perrow (1973) in a somewhat cynically titled paper on "The Short and Glorious History of Organisation Theory". Koontz (1961), likewise, has lamented at the state of affairs in "The Management Theory Jungle" where six major groups of management theory were recorded in 1961. Some two decades later, in 1980, when Koontz (1980) revisited "The Management Theory Jungle" again, he noted that the jungle has grown to become even more dense and impenetrable. In what has originally been six major schools of thought in 1961, the jungle has now expanded to embody at least eleven different approaches; namely, the empirical or case approach, the interpersonal behaviour approach, the group behaviour approach, the cooperative social system approach, the sociotechnical systems approach, the decision theory approach, the systems approach, the mathematical or "management science" approach, the contingency or situational approach, the managerial roles approach, and last but not least, the operational theory approach. Koontz (1961) observed that the entanglement of growth has then reached a crisis level where the study of management is now regarded as a study of one of a small number of systems and subsystems. Until the researcher has grasped the entire management universe, which he understandably has a natural inclination to do so, he will never be contented with the findings of his own works. Herein lies the enormous difficulty when the bulk of the management literature produced is at a rate beyond the reasonable reach and absorptive capacities of many researchers. As Koontz (1961) has noted, the large number and variety of approaches to management theory has now given rise to a kind of confused and destructive jungle warfare.

To the extent that the above observations are valid, one would expect organisation theorists to peruse and select concepts from among the bewilderingly large collection of management theories available which are, firstly, free from the vagaries of confusion and, secondly, readily adaptable for application. In the same light, Gilligan and Hird (1986) suggest that the degree of centralisation or decentralisation which is feasible constitutes the major determinants of an international organisation structure. Similarly, Kast and Rosenzweig (1985) have acknowledged the inseparability of both the formal and informal structures in actual

organisation. Both concepts of dualism therefore provide a heuristic starting point for investigating organisation design. However, its limitation and inaccuracy lies in its unduly simple approach and in its lack of forethought given to the many other important aspects of a structure. The dualistic concept, it would appear, has nevertheless led Spillard (1985) to a taxonomy of organisational choice in which a structural continuum was established with formal control and discretion as the two main characteristics of choice. Six organisational forms were identifiable along this continuum; namely :

1. Bureaucratic organisation.
2. Bureaucratic organisation with linking devices.
3. Divisionalised structure with varying degree of autonomy.
4. Profit centres and strategic business units.
5. Matrix form, and
6. Free form.

The dilemma, Spillard (1985) notes, lies, on the one hand, in giving managers the freedom to decide in the light of the problems and, on the other hand, in retaining control over what the organisation is actually doing. This dilemma appears to have been solved by Spillard (1985) to a certain extent following Galbraith's (1973) development of the structural continuum described above into a continuum of liaison devices. The Continuum of Liaison Devices has at both its extreme ends the Pure Functional Structure and the Pure Market Structure. Midway along the Continuum lies the Matrix Structure. With this continuum, decisional power can either be vested with the Functional Managers or with the Market Managers. Alternatively, this power may be shared by both the Functional Managers and the Market Managers operating in a Matrix Structure. This arrangement, in its judicious attempt to distribute decisional power, may however create yet other conflicts not readily recognised by proponents of the dualistic approach.

In another landmark study which will be dealt with in greater details later in this Chapter, Woodward (1965) has similarly criticised the profusion of organisation literature produced which have approached the proportions of a torrent. This, Woodward (1965) argued, gave rise to problems in analysis and integration for a general theory of organisation. In addition, Woodward's (1965) study revealed that firms not only varied in their organisation structures but also that firms who have purportedly adopted the classical management approach were not necessarily the most successful commercially. As such, Woodward's (1965) findings seem to suggest that classical management theory does not appear to be adequate as a practical guide for industrial organisations. Undoubtedly, this apparently controversial conclusion has provoked an outcry among the classical proponents and management educators who interpreted it as an attempt to both undermine the concepts and principles of classical management theory as well as an attack on management education. It would seem that the systematic body of knowledge developed by classicists such as Frederick

Taylor and Henri Fayol, in the light of Woodward's (1965) contentions, may not always be workable in fulfilling organisational expectations. In essence, Woodward's (1965) study of the manufacturing firms in South Essex, England, has pioneered the first acknowledgement of the relationships between technical processes and organisation structures. This marked the beginning of a gradual but widespread organisational recognition which came to be known as the contingency approach. Huse's (1980) discussions on organisational structure and design, for instance, suggest that the contingency approach may well represent a major breakthrough out of the classical management theory of rigid rules and bureaucratic structures. Huse (1980) maintains that an appropriate organisational choice clearly depends on the situation. No one single structure is ideal for all circumstances and organisations. The contingency approach recognises that the best structure is conditional upon the critical environmental factors within which a solution is being sought.

13.6. STRUCTURE AND TECHNOLOGY : WOODWARD (1958)

In "The Structuring of Organisations", Mintzberg (1979) has acknowledged that organisational performance is a result of an appropriate match between structure and situation, and that Woodward's (1965) contributions in the mid-1950s have first introduced the notion of contingency theory. Following the works of Woodward (1965), the relationships between structures and environmental predictability were also observed by Burns and Stalker (1961), and Lawrence and Lorsch (1967) not soon afterward. (Their respective studies will be dealt with in the next two sections which follow). Woodward's (1965) study of 100 manufacturing firms in South Essex started at the South East Essex College of Technology in 1953. As the long and complex series of investigations took place, the most crucial finding of a link between technical processes and organisational characteristics were, however, encountered almost by chance. Perrow (1973), for instance, claimed that Woodward (1965) first stumbled and then eventually made sense out of her otherwise hopeless data. In the ensuing pursuit, a torrent of studies have appeared, and is still appearing, all of which attempted to demonstrate how the nature of a task affects organisational matters.

The original intentions of the researchers at the South East Essex College of Technology were two-folds; firstly, to look at the division of responsibilities between line supervisors and technical specialists, and, secondly, at the factors which regulate the relationships between them along the production process. Their research work, in essence, questioned whether organisational principles, as laid down by an expanding body of management theory, correlate well with performance in practice. The main conclusion of the South Essex studies does not deny the important role the classical approach to management theory has. Rather, they stressed that the same principles embodied therein can produced different results under different circumstances. Hence, in the adoption of the classical approach, adaptation is more important than the principles or perceived rules expounded by the classicists. The contention that the principles of management theory should not

be regarded as rules in the scientific sense and that an understanding of no one best way of organising business reflected a shift away from determinism which characterised the classical approach.

Woodward (1965), in reporting her findings, suggested that many of the variations found in the organisation structures of the firms studied appeared to be related closely with different manufacturing technologies which consequently exerted different kinds of demands on both individuals and organisations alike. The appropriate types of organisations are therefore structured to correspond with the types of demands made. In addition, Woodward (1965) observed that the more successful firms appeared to be those where function complements form. Therefore, in the process of developing organisation structures to suit the demands of different technical situations, there exists a need to examine what purposes each organisation has to serve. In relation to the manufacturing firms studied, Woodward (1958) has classified their techniques of production into the following three groups :

1. Small batch and unit production.
2. Large batch and mass production, and
3. Process production.

These categories were reviewed by Koontz and Weihrich (1988) who subsequently suggested that the more successful firms in the large batch and mass production group were generally organised in mechanistic terms, while those of both the small batch and unit production group as well as the process production group were more effectively organised on the basis of Burns' and Stalker's (1961) organismic structure. Likewise, Spillard (1985) believes that the more a technology is standardised and the less reliance is needed of managerial day-to-day decision-making, then the less discretion is allowed at the lower levels of the organisational hierarchy.

In her study, Woodward (1965) also came to regard both the formal organisation and informal organisation under the province of organisation theories and social science theories respectively. Nonetheless, during the course of her research study, it became increasingly obvious that the dividing line between these two facets of organisation was somewhat indivisible as even the most superfluous investigations brought the researchers into contact with the problems and patterns of both the formal as well as informal organisation. Apart from these difficulties, Woodward's (1965) study, in essence, suggested that in any search for effective performance, organisation design is contingent on production technology. The majority of the respondents interviewed in the South Essex research project felt that there is no one best way of structuring a firm's organisation. Their opinions culled suggested that any one particular structural system work as well as another, and that the various forms of organisation structures experienced in the management literature are possible options available for implementation. Some managers have therefore consequently regarded their own firm to be both unique and isolated, and that the

experiences encountered by other firms may have little, if any, relevance.

## 13.7. MECHANISTIC AND ORGANIC STRUCTURES : BURNS AND STALKER (1961)

The work undertaken by Burns and Stalker (1961) represents another important transitional landmark in management theories. Their research studies of 20 electronic firms in Scotland suggested that the different structural forms adopted by a working organisation do exist objectively and are not mere interpretations propounded by observers from different schools of management thought. Through detailed studies of these firms, Burns and Stalker (1961) have observed two dominant models of structural patterns in their organisations; namely the mechanistic and organic systems. While mechanistic systems are thought to work well in stable environments, organic systems, on the other hand, adapt an organisation better to dynamic operating environments. Burns and Stalker (1961) claimed that both types of systems may be explicitly created to deliberately maintain or exploit the human resources of an organisation in the most effective and feasible manner under the circumstances considered. Furthermore, both systems are not isolated from one another but are instead the two extreme points along a "rational" continuum where appropriate organisation design may take place. In essence, the continuum represents a polarity, not a dichotomy, and as Burns and Stalker (1961) revealed, firms positioned at intermediate stages of the continuum have been experienced empirically. This means that it is possible for an organisation to include both the mechanistic system and the organic system as the management structure concerned oscillates between the two in the process of adjusting between relative stability and change.

Burns' and Stalker's (1961) study also reflects the dualism which prevails in social structure. Their evidence recognised that the members of a business concern are at one and the same time cooperators for a common entrepreneurial cause and competitors clamouring for the rewards of success over one another. The hierarchical order of power and authority, as manifested in an organisation chart, is therefore both a control mechanism and a career ladder. In a mechanistic system, an operator needs to be told what he has to attend to and how, what he does not have to bother with, and what he can deflect elsewhere as the duties and responsibilities of others within the bureaucracy. In an organic system, the same operator has now to regard himself as fully implicated in the discharge of organisational tasks which appear within and beyond his boundaries of concern. He is now involved not only in his area of specialisation but in the course of discharging his obligations, also undertakes to commit himself to overall organisational success.

The proper organisational form is therefore seen to be dependent on the situation management is trying to meet. A continuum of both the mechanistic and organic systems reflects this dependence appropriately; one in which management can be seen to adapt the resources of an organisation to the vagaries of the operating environment. As Burns and Stalker (1961) argued in their findings,

"it follows that there is no single set of principles for 'good organisation', an ideal type of management system which can serve as a model to which administrative practice should, or could in time, approximate. It follows also that there is an overriding management task in first interpreting correctly the market and technological situation, in terms of its instability or of the rate at which conditions are changing, and then designing the management system appropriate to the conditions, and making it work (Burns and Stalker, 1961: preface, p. viii)."

## 13.8. DIFFERENTIATION AND INTEGRATION : LAWRENCE AND LORSCH (1967)

In their attempt to relate effective organisational types to different external economic and technical conditions, Lawrence's and Lorsch's (1967) study of the plastic, food and container industries represents yet another landmark in clarifying some of the then existing management theories. In their search for a better understanding of large and complex organisations, they have covered substantial ground over managerial decision-making in organisational matters. In the course of their work, other studies which were concerned with the various ways in which organisations are designed as well as other significant management principles were also reviewed in support of their findings over what has now come to be known as the contingency theory of organisation. These included the two major works of Woodward (1958), and Burns and Stalker (1961) which, as examined in the sections above, bear on the performance of different organisation structures in different environments. Taken together, these have provided a convincing body of evidence which suggests that different organisation structures are required to cope effectively with different task and environmental conditions, representing, in the process, a formidable shift towards a contingency approach to organisation design which attempts to reconcile both the Classical and Human Relations Approaches. Lawrence and Lorsch (1967) have fundamentally revolved their studies around the two concepts of differentiation and integration in their build-up to the contingency theory of organisational structuring.

The resultant findings of Lawrence and Lorsch (1967) were quoted extensively by many others. Baker (1979), for example, has traced differentiation back to the division of labour where functional specialisation is a necessary prerequisite for effective performance. However, because of their diverse areas of expertise, functional specialists have different connotations over what they perceived to be important in accomplishing organisational tasks. Integration is therefore related closely with differentiation if coordination is to be achieved. Blau (1970) has even gone a step further to suggest that differentiation manifests itself in two directions within an organisation. While the vertical differentiation of activities represents managerial hierarchy, the horizontal differentiation of activities defines the basic departmentation of an organisation. Taken together, they determine the formal structure of an organisation. Lorsch (1977), at a later stage, likewise, looked upon integration as

"the quality of the necessary relationships among the units of the organisation if the organisation's overall goals are to be achieved (Lorsch, 1977:10)."

Lorsch (1977) has found that a high level of goal attainment is related to a correspondingly high quality of integration. However, there are several problems which make integration difficult. Firstly, the more operating units there are, the more elusive collaboration becomes. Secondly, integration depends on the patterns of interdependence among these units which can either be pooled, sequential or reciprocal. Naturally, integration becomes increasingly difficult as one moves from pooled to sequential to reciprocal interdependence as a result of the growing number of complex relationships that surfaced. In extending these further, the third problem occurs when frequent interactions are required among the units involved. Last, but not least, more time and effort have to be expended in sorting, understanding and resolving conflicting points of view when the volume of information required for integration becomes increasingly complex and uncertain. Following the work of Lawrence and Lorsch (1967), Spillard (1985) has concurred that the more successful firms appeared to be those who managed to, firstly, achieve the sub-goals required for each sub-environment (i.e. differentiation) and, secondly, integrate the sub-goals of each sub-unit to the overall organisational goals.

There were also suggestions by Lawrence and Lorsch (1967) that the classical management theorists are more concerned with differentiation and integration to the extent that the systemic properties of organisations were not at all recognised. In their pursuits of bureaucracies and formal structures, classicists were interested in discovering the one best way of dividing and integrating organisational tasks. Not surprisingly, their indulgence have led them to neglect the influence of departmentalisation on members' behaviour within an organisation. Lawrence and Lorsch (1967) have also continued on to suggest an inverse relationship between differentiation and integration. As such, a highly differentiated organisation becomes more difficult to attain integration. Likewise, highly differentiated organisations operating in highly diverse environments require more elaborate integrative devices. Lawrence and Lorsch (1967) have conceded that a contingency theory of organisation design must therefore recognise the intrinsic systemic properties of organisation. This reflects the complex interrelationships between organisational variables as well as with environmental factors. With the onslaught of contingency theory, management can no longer be concerned with the one best way of organising. This marks the beginning of a new conceptual framework in organisation design where prior attention needs to be directed towards understanding the tasks organisations are expected to perform.

In their review of both the Classical and Human Relations Approaches in traditional organisation theories, Lawrence and Lorsch (1967) have expressed lamentation over the wide range of organisation theories which tend to stifle progress in so far as the

selection of a rational option from among the choices available are concerned. In their analysis of these two major schools of organisation theory, they observed that each theory seems to be appropriate under different environmental settings. While the Classical Approach tends to be more relevant under stable environments, the Human Relations Approach is more appropriate in dynamic situations. However, although these two theories have persisted in parallel existence for a long time, neither one could displace the other. Both need to go hand in hand to explain organisational behaviour in different environments. The debate over this perceived dichotomy, be it rational or irrational, formal or informal, mechanistic or organic, has continued unabated in the search for a single best way of organising business activities. It would seem that this has led to the contingency theory, a term first used by Lawrence and Lorsch (1967), which represents a breakthrough out of what has now appeared to be an unfruitful debate.

## 13.9. A CONTINGENCY APPROACH

In the light of numerous dualistic theoretical models which exist for organisation design, the contingency theory of organisation put forth by Lawrence and Lorsch (1967) appears to provide an outlet out of this maze of complexities. In tandem with the various schools of management thought which have developed over the years, there is now a corresponding need to sieve through all possible alternatives before selecting the most appropriate options available. Herein lies the dilemma facing practitioners involved with making organisation design decisions. In the pursuit of convenience and rationality, one would tend to search for a single best way to achieve organisational objectives, preferably one of universal application under all circumstances. If the search for a universal model has been fulfilled in the first instance, then the ensuing debate with regards to organisation design could well have ended here. Unfortunately, this does not appear to be the case. Child (1977), in a treatise on organisational choices, concedes there is no one single best way of organising and that this reality poses a dilemma to managers involved with making organisation design decisions. Mintzberg (1979), likewise, argues that organisational success does not stem from the use of any one single structural device but rather flows from a combination of appropriate devices. In his hypotheses of structural effectiveness, Mintzberg (1979) maintains that the successful organisation, firstly, designs its structure to match its situation and, secondly, develops a logical configuration of the design parameters. Under the situations in which they may be found, Mintzberg (1979, 1981) has subsequently identified five configurations, each of which are structurally distinctive. These are the simple structure, machine bureaucracy, professional bureaucracy, divisionalised form and adhocracy. Each structural configuration, in turn, consists of five basic parts; namely the strategic apex, operating core, middle line, technostructure and support staff. Depending on the environment in which an organisation operates, every organisation experiences five forces that underlie their respective configuration. These are :

1. The pull to centralise by the strategic apex or top management.
2. The pull to formalise by the technostructure.
3. The pull to professionalise by the operators.
4. The pull to balkanize (obstruct) by managers in the middle line, and
5. The pull to collaborate by the support staff.

Doyle's (1979) study of management structures and marketing strategies in the British industry has, likewise, revealed three major approaches adopted by organisation theorists. These are the power, role and task structures. While each of these three structures may be predictably effective in dealing with certain performance criteria, Doyle (1979) believes they can be equally disastrous with others. The fundamental problem in organisation design, Doyle (1979) notes, arises when different tasks require different structures. In so far as the three structural types are concerned, the role structure is more appropriate in a steady-state situation. Likewise, an innovative environment demands a task-oriented structure capable of adaptation to prevailing constraints and opportunities. A power structure, on the other hand, offers an appropriate configuration for the selected few involved with policy-making. In the light of these structural alternatives, Doyle (1979) goes on to conclude, firstly, that the more effective structure for an organisation depends on its strategic priorities and, secondly, that both inter-organisational and intra-organisational structural diversities are to be expected. In line with Chandler's (1962) landmark study on structure and strategy, Doyle (1979) recognises an organisation as a design to structurally operate a particular strategy. As such, an effective structure can only be developed after the strategic priorities of an organisation are made known.

In relating organisation with marketing, Spillard (1985) likewise suggests that structure has a tendency to follow tasks which are continuously changing within the product or market life cycles. As a result, except in the rare case of a single product / single market organisation, it is unlikely to encounter only one task. An organisation, in all probability, faces a mixture of tasks in differing product or market cycles. Similarly, the tasks faced by one part of an organisation may be quite different from those faced by another part of the same organisation at another or the same time. Again, with reference to the work of Chandler's (1962), Spillard (1985) acknowledged that the most complex type of structures may be necessitated as a result of several strategies, and hence decisions, acted upon by an organisation at any one time. With specific reference to organising the marketing function, Spillard (1985) notes that

> "The major task of a marketing planner when confronting the need to design or redesign his own organisation and its links with other units (or a chief executive when deciding upon the way a total organisation should be structured so that its marketing activities are effective) is to select the correct patterns from among a variety of choices. This choice is only seldom made independently of a wide range of constraints and does not necessarily follow from autonomous analysis. More frequently, it is ad hoc and severely pragmatic. Nevertheless,

choices are available and a decision problem therefore does arise (Spillard, 1985:2)."

Spillard (1985) continues on to suggest that there is never one single best structure to suit all environments and firms as the appropriate pattern finally chosen depends on a wide range of contingent variables. The relative costs and benefits of each pattern, therefore need to be traded off in relation not only to each other but also to the structure currently adopted at a time when reorganisation is contemplated. In the search for a single "correct" organisation design for marketing, Spillard (1985) maintains that the marketing practitioner, at best, can only be guided by pragmatism. In this respect, Spillard (1985) considers it

> "important always to bear in mind that there is no such thing as the perfect solution or even an ultimate goal for which to strive in organisational design. All the time, contingency theorists are talking about a best fit with the environment rather than an ideal model that covers all circumstances (Spillard, 1985:94)."

In mapping out his own contingency model for marketing organisation, Spillard (1985) has identified the following independent and dependent variables :

| Independent variables | Dependent variables (Organisational choices) |
|---|---|
| 1. The marketing task | 1. Bureaucracy |
| 2. Philosophy and fashion | 2. Linking devices |
| 3. Personnel | 3. Divisionalisation |
| 4. Style, orientation and culture | 4. Business units |
| 5. Environment | 5. Matrix |
| 6. Control and information systems | 6. Free form |
| 7. Technology | |
| 8. Compatibility with other organisations | |
| 9. Strategy and purpose | |
| 10. Size and life cycle of the enterprise | |
| 11. Resource dependencies | |
| 12. Emulation | |
| 13. History | |

As a result of the large number of linkages between each of the thirteen independent variables on the dependent variables, Spillard (1985) concedes that it has not been possible to construct rules or normative guidelines even though it has remained possible to describe some of the reasons for these linkages. Each independent variable not only carries different weight in influencing the

dependent variables but are also somewhat directly interconnected. Although it is possible to isolate the more important independent variables or cluster some of them together, in an approach involving a combination of several organisation structures, there are again difficulties in deciding which segmentation should take precedent over others. For example, should the organisation be regionalised first and then functionalised, or vice versa. An alternative out of this dilemma would be to adopt an Adhocracy which attempts to combine the benefits of both the bureaucratic and organic structures, and where changes are made as frequently as necessary to tailor the internal shape of an organisation to the demands of its environment. As Spillard (1985) reasons,

> "In any case, the problem of designing the correct organisational structure for marketing that will remain immutable for the period of the strategic planner's time-horizon is so complex that adhocracy is perhaps the best answer, as long as the new answers are acceptable and better than the old ones (Spillard, 1985:135)."

Within the context of organisation for international marketing, Cundiff and Hilger (1984) have attempted to identify the effects of different situations on organisational alternatives and have, likewise, advocated that there is no one best way to organise international marketing responsibilities. Gilligan and Hird (1986), in their treatise of international marketing organisation, believe there is evidence to suggest that many international companies go through a regular process of review and structural change. These changes, Gilligan and Hird (1986) maintain, can vary considerably when companies attempt to cope with issues such as sales growth, increased competition, new product developments or acquisitions, and a realisation of the inadequacies of existing structural arrangements. As a result, there are no "right" structure as such although some are evidently more likely to "fit" better than others with company objectives, strategies and culture. In any case, as Gilligan and Hird (1986) contend, international structures need to change to cope with the complex and continuously changing environmental pressures of the business world. In his expositions on organisation for global marketing, Keegan (1984) maintains that it is important to recognise at the very outset that there is no one single correct structure for international marketing. Furthermore, because the environmental pressures that mould organisations are never exactly the same, no two organisations therefore pass through the same stage in exactly the same way nor adopt exactly the same organisational pattern. This is in spite of some of the general patterns which may have developed in the process. In citing the works of Corey and Star (1971), Piercy (1986) concurs that organisation design begins with the market and that as market conditions or customer groups change in character, or as strategies are reformulated, organisation structure must change accordingly. An implicit recognition of the contingency concept in marketing organisation can be seen in the statements made by various marketing practitioners in their literature. Kotler

(1988), the American marketing guru, for instance, observes that the organisation structure for marketing is shaped by a host of unique factors such as company's objectives, management's views of marketing and organisational philosophy, the significance of different marketing tools, the types and numbers of products as well as the nature of the competition faced. Christopher, et. al., (1980), similarly suggest that the types of situations and difficulties which organisations face vary so widely that marketing departments are forced to operate in many different ways. Koontz and Weihrich (1988), in their work on basic departmentation, likewise, recognise that there is no single pattern of departmentation suitable for use in every situation. Managers, therefore, need to assess the particular circumstances in which they are operating in before selecting the patterns which will appropriately assist them in achieving organisational objectives. In their contentions that the situational and contingency perspectives are not new or separate approaches, Koontz, O'Donnell and Weihrich (1986) maintain that the contingency theory is simply "application in the light of a situation". A practitioner is therefore likely to become a situationalist in so far as the applications of management concepts, principles and techniques are concerned. The application of contingency theory to marketing organisation have been undertaken by Ruekert, Walker Jr. and Roering (1985) who proceeded to examine the relationship between structure and performance. In drawing implications for marketing management, they suggested that within the framework of the contingency theory of structure, no one structure is equally relevant for all types of tasks or environmental circumstances. Because marketing activities entail the accomplishment of tasks under different environmental conditions, Ruekert, Walker Jr. and Roering (1985) considered it reasonable to expect and require different organisational arrangements to cater for different products at various stages of their life cycles. This approach, it would seem, introduces the matrix form of structural design which provides for the different needs of an organisation. In so far as support for this contention is concerned, Huse (1980) appears to suggest that a matrix structure is, in essence, a contingency form of organisation where a combination of approaches is used. This, as Kast and Rosenzweig (1985) have noted, is more evident in the larger organisations where there is no one basis of departmentation which is carried out uniformly throughout the entire organisation. Product divisions, functional specialisations and geographical divisions may each be present at different levels of an organisation.

## 13.10. A CRITIQUE OF THE CONTINGENCY APPROACH TO ORGANISATION DESIGN

Although the contingency approach to organisation design seems to offer a sensational breakthrough out of the existing maze of organisation theories, some inherent weaknesses still remain. There appears to be confusion both over the term used as well as its appropriateness as a theory in so far as the Lawrence and Lorsch (1967) model is concerned. While Lawrence and Lorsch (1967) have provided a significant choice in organisation design, it is felt that this does not in itself qualify

as a theory. Rather, their insights have helped to provide a perspective which calls for the selection and adoption of one approach, out of the several available, which is most suitable for the circumstances under consideration. In essence, a choice of rationality is made in the light of the constraints and operating resources one has. As such, the term "contingency theory", as used by Lawrence and Lorsch (1967), can become difficult to be justified when the "theoretical constructs" or ideas contained therein tend to be somewhat misleading. This contention can be gleaned from the works of Lorsch (1977) a decade later when he admitted that the ideas contained in the term "contingency theory" may instead mislead and confuse practitioners with contingency plans which are spelt out for unpredictable future events. In addition, the confusion may well have been compounded further by others who had conceptualised similar theoretical propositions under different names like, for example, the expectancy theory. On the basis of these developments, Lorsch (1977) has offered the term "situational" as an alternative to "contingency". The term "situational", as Lorsch (1977) explains,

> "means that what are appropriate behaviour patterns in an organisation depend on the environment that confronts the organisation and on the personalities of the members of the organisation (Lorsch, 1977:2)."

As such, the situational approach brings to the attention of practitioners organisation design issues in relation to both the environmental features and human peculiarities in their respective situation. In his revisit to "The Management Theory Jungle", Koontz (1980), likewise, has highlighted the synonymy between contingency management and situational management which are often used interchangeably. Nonetheless, Koontz (1980) observed that some scholars have remained insistent in differentiating between the two terms. Hence, in situational management, what a manager does will depend on a given situation. On the other hand, contingency management suggests an interdependence between the variables in a situation and the managerial solutions correspondingly devised. It would therefore appears that time does not lapse in a situational approach, where ad hoc decisions are made and taken immediately in the face of the situation. This contrasts sharply with the contingency approach where a time gap exists and where contingent decisions are made in anticipation of an impending situation.

Apart from the confusion over the use of terms, there is also uncertainty as to which contingency variables are more important than others in any one particular situation. Mintzberg (1979), while advocating deficiencies in research methodologies as the main cause for the confusion, is unclear over which one of the contingency variables - notably size, technology and environment - has the greatest influence over structural design matters. The host of problems created, Mintzberg (1979) argues, lies in the predominant adoption of cross-sectional studies by researchers of only two variables based on perceptual measures. Along similar lines, Lorsch (1977)

maintains that there is nothing wrong with the rich array of existing ideas on how to structure an organisation. The pressing problems basically arise when practitioners fail to discriminate systematically from among the numerous options available and to decide which are more relevant for the situation under consideration. In acknowledging the contingency approach as the dominant paradigm in the study of organisation design, Child (1977) also points out the inherent limitations of such an approach. The main setback of the contingency approach, Child (1977) claims, lies in the lack of conclusive evidence to show that a match between organisation design and the prevailing contingencies contributes substantially to performance. Even where a relationship can be established between organisation designs and performance levels, there still remains doubts over whether organisation is the only causal variable. Needless to say, some other non-organisational factors may, on the contrary, turn out to have a greater level of influence and association with performance than organisation itself. However, Child's (1977) expectation of the contingency approach seems to be more than what the approach has originally set out to offer. The contingency approach does not seek optimality in all situations but rather what can reasonably be adopted, from the numerous alternatives available, for the best interests of all those concerned. Child (1977) goes on to suggest that most researchers have failed to consider a multi-variate analysis of the relevant contingent variables in relation to organisation design and performance. The problem arises in so far as multiple contingencies are present and yet are not adequately recognised at the same time. Child (1977) considers it fallacious to take into individual account only size or environment or technology while designing organisation structures. Again, a dilemma can occur because the structural implications of each contingency variable on organisation design are unlikely to be the same. To overcome these difficulties, organisations have resorted to adapting a multitude of units to deal with the continuum of both the stable and dynamic operating environments as and when they arise. While differentiation of units has to be maintained for different tasks, this unwieldingly brings along with it a corresponding need to integrate them together for organisational balance. Hence, the higher the degree of differentiation within an organisation, the greater will the need be for integration. An attempt to match the structuring of different functions to the domineering contingencies can inevitably become difficult because of structural differences and even incompatibilities. Practitioners, Child (1977) claims, have yet to recognise the organisation design difficulties within the framework of multiple contingencies. Lansley, Sadler and Webb (1974), in their empirical study of 50 printing and building firms, believe it makes little sense to consider any one of the three variables - size, environment and technology - individually and separately from the others. They suggest that a change in technology will influence the nature of the work itself as well as the enterprise's relationship with its environment.

The significant work of Chandler (1962) which relates to the link between strategy and structure provides yet another impetus to contingency variables. This necessitates a consideration of growth strategy which may manifest itself in diversification and internal growth. In response, structural variables may either be centralised / functional or decentralised / multi-divisional. Chandler's (1962) contention that strategy follows structure has, nevertheless, been criticised by Spillard (1985) for its partial one-way view of the links between the two. Spillard (1985) argues that when a firm is well-established and possesses immense inertia, then it may be true to say that strategy follows structure. However, in the case of younger, relatively new organisations or those which are responsive to their environments, it is quite likely that strategy will take precedent over structure. Spillard (1985) maintains that an organisation which has been more successful in the past in achieving its objectives will find it more difficult to change its structure to response with a change in strategy. This is particularly so where success has been attained for a long period of time and where the purpose of the firm is more singular. This would seem to suggest that organisational changes cannot be instituted with complete disregard for the existing structure. Where necessary, a gradual change may be more desirable than a radical one.

In so far as Lawrence's and Lorsch's (1967) contentions are concerned, and apart from some slight qualifications, Spillard (1985) appears to accept unconditionally the assumption that no one single organisation is suitable for all occasions. In Spillard's (1985) opinion, if the sub-units within an organisation face different operating environments, then the most appropriate managerial and organisational forms are also likely to vary between these sub-units. In accepting the Lawrence and Lorsch (1967) model - i.e. the structural adoption of which depends on the situations encountered - then the problem of integrating these diverse sub-units immediately arises. It would appear that these difficulties in integration may be subdued to a limited extent by reversion to the traditional approach which stresses hierarchical reporting. However, in so doing, the flexibility which an organisation possesses may have to be foregone.

## 13.11. ORGANISING INTERNATIONAL MARKETING DEPARTMENTS

The crystallisation of a marketing department within an overall organisation may have to be viewed from both a functional and philosophical perspective. In an organisational context, marketing as a function or philosophy has an influence over how marketing activities may be organised within a firm. As Baker (1979) notes, marketing can be organised readily as a function within the firm but its effectiveness is unlikely to be favourable unless it has also been adopted correspondingly as a business philosophy. On the other hand, an acceptance of the marketing concept by individuals is simply inadequate to make the firm marketing oriented until an organisation structure has been developed which will enable it to translate thought into action. Friedman (1984) suggests that the evolution of a

marketing organisation is related to both the size of the firm as well as the degree of marketing orientation within the firm. This can evolve through five stages to yield the Simple Sales function, Simple Sales with additional functions, Separate Marketing Department, Modern Marketing Department, and Modern Marketing Company.

Perlmutter's (1969) classifications of the three major international orientations - ethnocentrism (home country orientation), polycentrism (host country orientation) and geocentrism (world orientation) - have been able to shed some light on how marketing executives identify and influence organisational development. These orientations have been investigated by Wiechmann and Pringle (1979) in their study of the problems which plagued multinational marketers, where they convincingly showed how Perlmutter's (1969) schema reflects organisational staffing along with their attendant problems. Wiechmann and Pringle (1979) have examined the practices of both American and European multinationals and their subsidiaries and discovered that it is not the political, legal or social complexities of foreign markets which cause the major problems in international marketing. Rather, the difficulties which frequently occur are a result of the friction, mistrust and suspicion that build up between head office and subsidiary staff. Likewise, in suggesting that the environments within which marketing activities take place are becoming increasingly complex, ambiguous and transitory, Doyle (1979) concludes that marketing decisions can no longer be taken now within a clear functional organisation. Bolt's (1973) overall view of the EEC markets has similarly revealed six alternative methods for organising the marketing function; namely by functions, product groupings, geographical areas, intermediate customer types, ultimate customer types, and any of the above combinations.

Several marketing publications have also typified other means of organising marketing which are similar in many aspects. Gilligan and Hird (1986), for example, have identified six structural patterns within the framework of international marketing. These are international subsidiary structures, international division structures, functional structures, geographical structures, product structures and matrix structures. In their treatise on organisational alternatives in international marketing, Cundiff and Hilger (1984) have noted the generalisations that can be made about organisational processes in all markets concerned with the issues of centralisation and ownership of foreign facilities and offices. In so far as the degree of centralisation is concerned, an organisation may therefore employ either international specialists (i.e. least centralisation), international divisions or international corporation (i.e. most centralisation). Likewise, ownership of foreign facilities may be organised on the basis of sales branches and subsidiaries, joint ventures, international licensing, franchising, and management contracts. Kobayashi's (1982) study of Japanese multinational enterprises has showed five stages of internationalisation and their respective management perspectives. Along the continuum of development, these are :

1. Management by the head office.
2. Delegation of management to overseas operating units.
3. Regional coordination of overseas operating units.
4. Management from a global perspective, and
5. Management combining a global perspective with integration of overseas operating units into the logistics of the firm as a whole.

Kobayashi's (1982) findings did not, however, indicate any direct correlation between internationalisation and management performance. Brooke and Remmer (1977), likewise, believe many corporations have become international by a process of chance increments rather than by a sequence of deliberate strategic choice. In their study concerned with the growth of administrative structure, Kast and Rosenzweig (1985) disclosed that their findings which attempt to relate structure with organisational size are, as yet, inconclusive. Nonetheless, there is consensus that the larger organisations are likely to have more complex and elaborate structures. On the other hand, there is substantial evidence to suggest that the more differentiated and diverse organisational activities also require more complex organisations. In the process, more integration is required.

With the advent of globalism which some of the larger international companies have declared, the distinction between domestic and foreign operations has become somewhat less clear. As Gilligan and Hird (1986) have observed, some global companies have placed emphasis on organisation structures that are operationable in both the domestic and international markets. It would appear that because globalism does not differentiate between local and foreign markets, such a perspective correspondingly has little or minimal impact on organisation design. While this suggestion may be plausible to some extent, Christopher, Lancioni and Gattorna (1985), nevertheless, maintain that the successful implementation of an international customer service system depends on a company's ability to develop an internal organisation to deal with the service issues.

In tandem with these expositions, the alternative options available in structuring a marketing organisation within the overall company can be seen in Figures 13.1. to 13.7. These organisational options are :

1. The Single Marketing Executive.
2. Functional structure.
3. Divisional structure.
4. Products structure.
5. Geographical structure.
6. Matrix structure.
7. Complex structure, and
8. Any of the above combinations.

## 13.12. STEPS IN DESIGNING MARKETING ORGANISATIONS

Before plans for the organisation of a marketing department can be implemented,

both the marketing scope and function to be performed for the company concerned have to be defined. Within the context of construction companies, Friedman (1984) considers the following purpose and responsibility to be of utmost importance in so far as marketing is concerned :

1. The need to formulate and recommend to top management both long and short range marketing plans for the business in terms of project types, geographical areas, customers, and services.
2. The need to formulate, execute and evaluate sales and marketing programmes to achieve these plans, and to integrate the performance of these activities with other functions of the business.

Friedman (1984) continues on to note that the effort needed to organise marketing structures may both be simple and complex, depending on the appropriateness desired. Friedman (1984) has suggested five interrelated steps to achieve the end result; i.e. in designing an appropriate marketing organisation :

1. The work which is required to be done is first determined.
2. The marketing structure is then established.
3. Individual positions within the structure are then defined.
4. The proposed organisation is subject to further scrutiny and documentation.
5. The organisation plan is communicated to those concerned and implemented.

In addition, Christopher, et. al., (1980) have canvassed that the marketing department must be structured to take into account the allocation of responsibilities for both the achievement of the 4 P's (i.e. Place, Price, Product and Promotion) as well as the coordination of strategies implemented for the management of the marketing mix. Spillard (1985) similarly recognises a need to consider the firm's logics or concepts before organisational implementation can achieve effectiveness. Amongst others, Spillard (1985) has advocated nine logics to replace the vague notion of the competition between "production" and "marketing". These nine logicss are : the raw material, process, technological, product, market, product/market, marketing task, personality, and philosophical. These need to be reflected in marketing planning

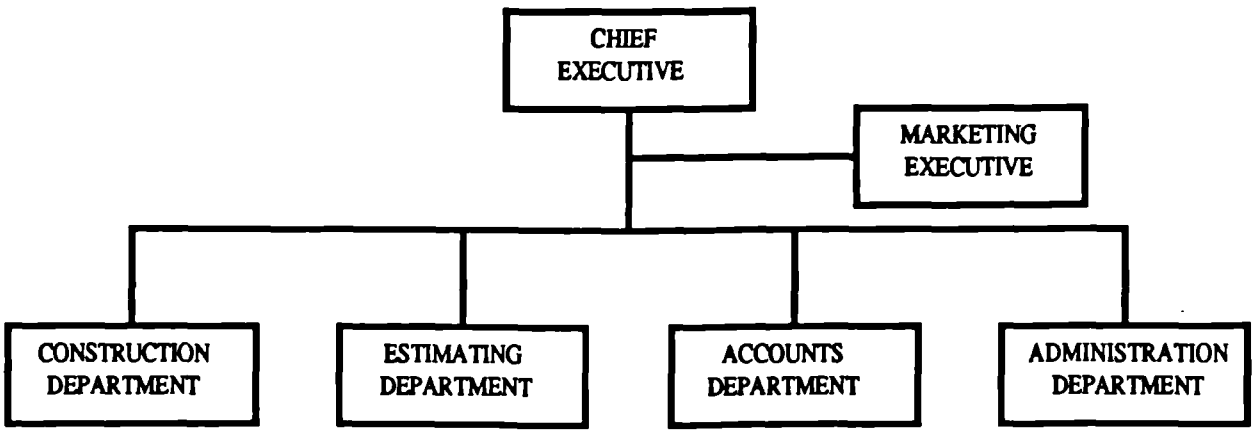



FIGURE 13.1. THE SINGLE MARKETING EXECUTIVE

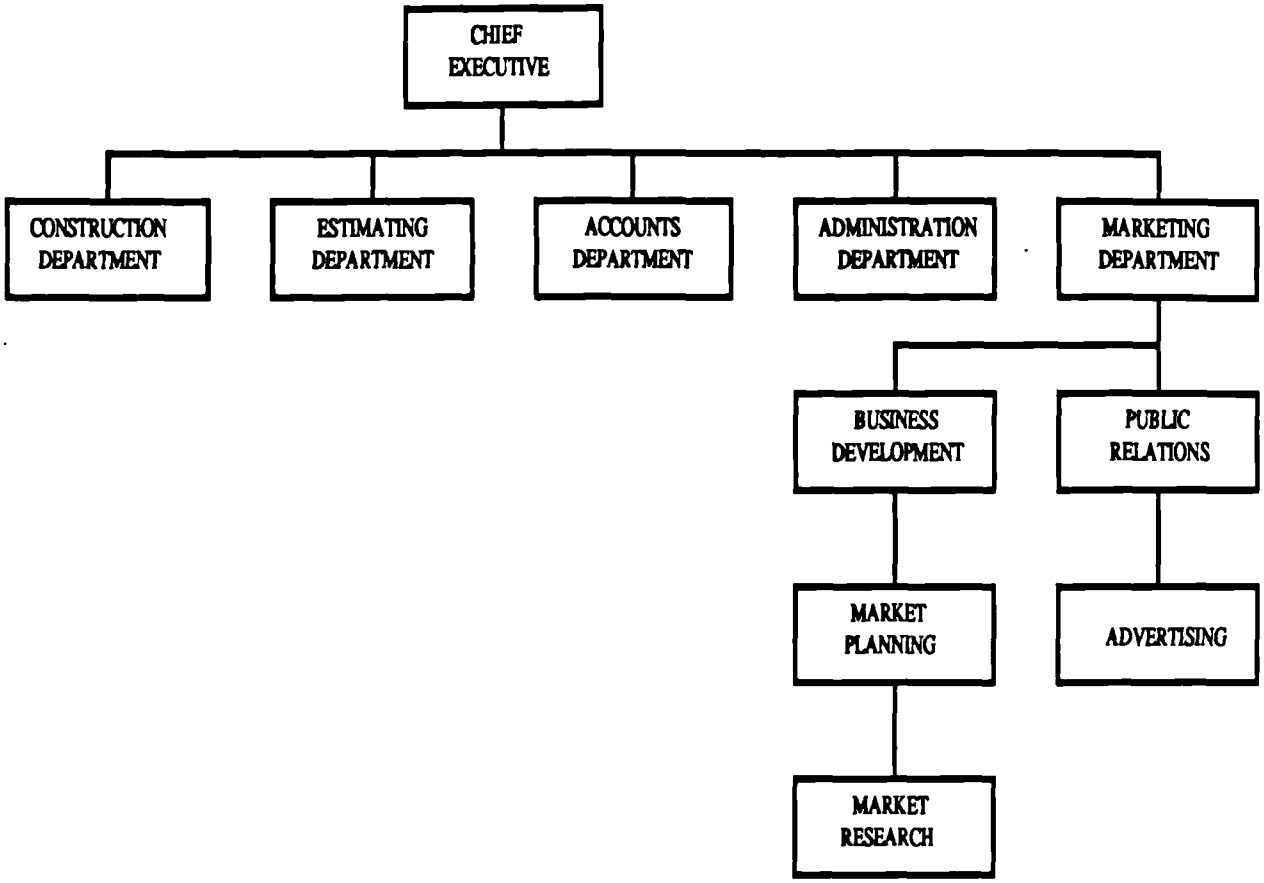



FIGURE 13.2. FUNCTIONAL STRUCTURE

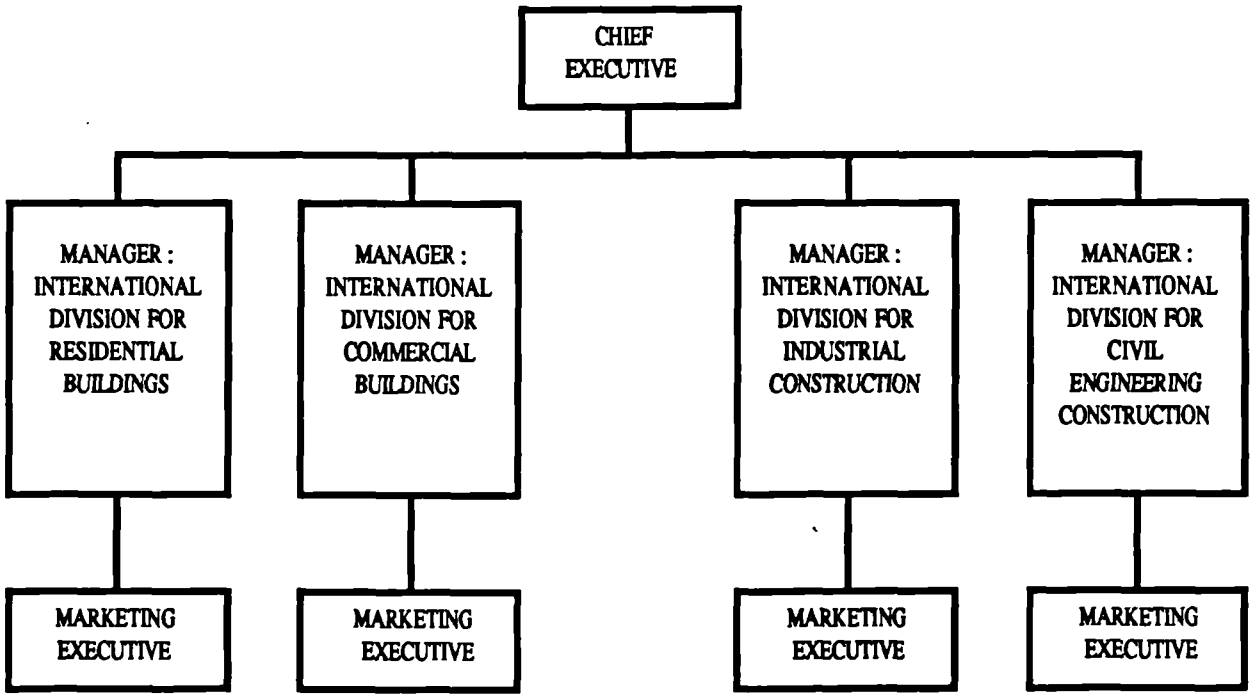



FIGURE 13.3. DIVISIONAL STRUCTURE

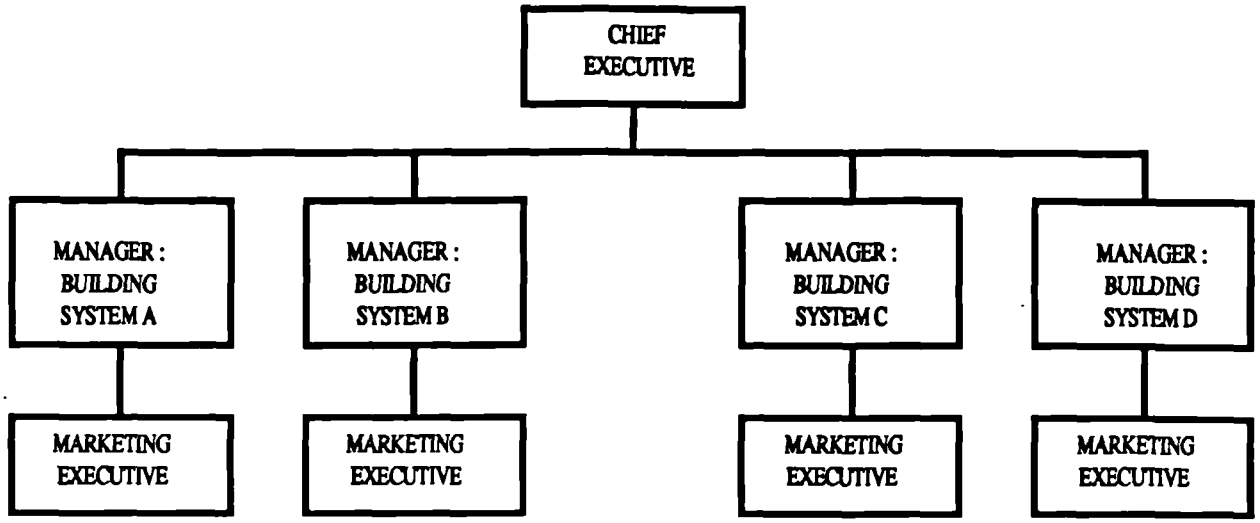



FIGURE 13.4. PRODUCTS STRUCTURE

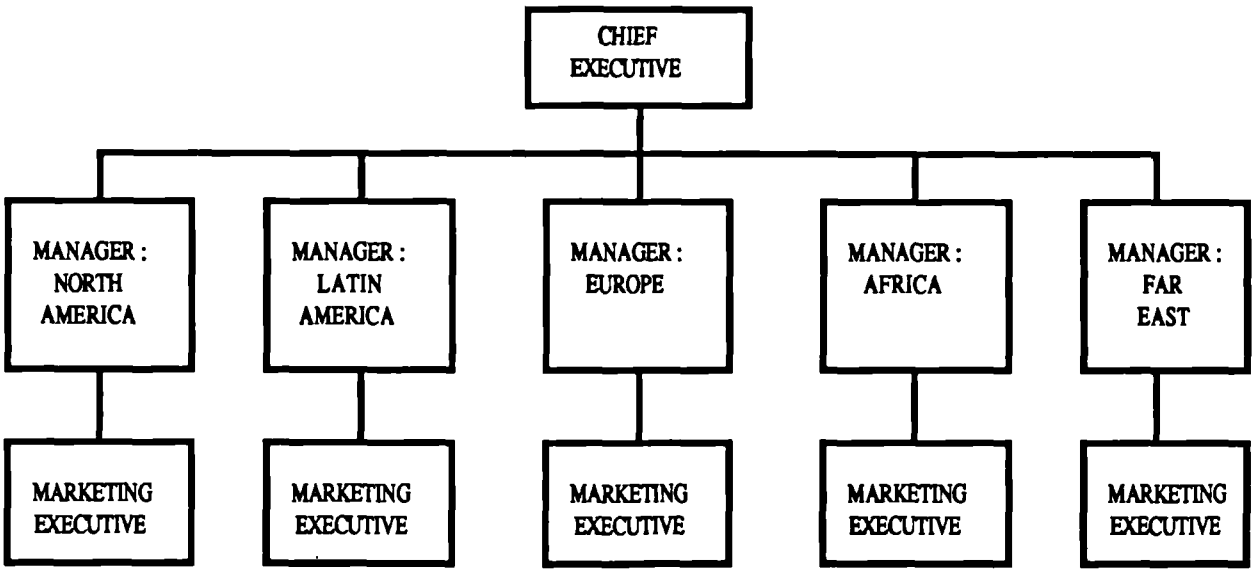



FIGURE 13.5. GEOGRAPHICAL STRUCTURE

and organisations. Most firms, Spillard (1985) claims, possess all of these logics to some extent and a study of the history of an organisation is one way of drawing some inference about them before a balance can be contemplated.

In their studies on the organisation of marketing activities, Ruekert, Walker Jr. and Roering (1985) have observed a major stumbling block in so far as the focus of both the academics and practitioners is concerned. They argued that far too much attention has been given to the organisation of the total corporation and the various planning and control units within it. As a result, the task of structuring individual work units has largely been ignored. Where this has not been the case, Friedman (1984), nonetheless, recognises the confusion created within the construction industry amidst the profusion of titles used to denote persons with sales and

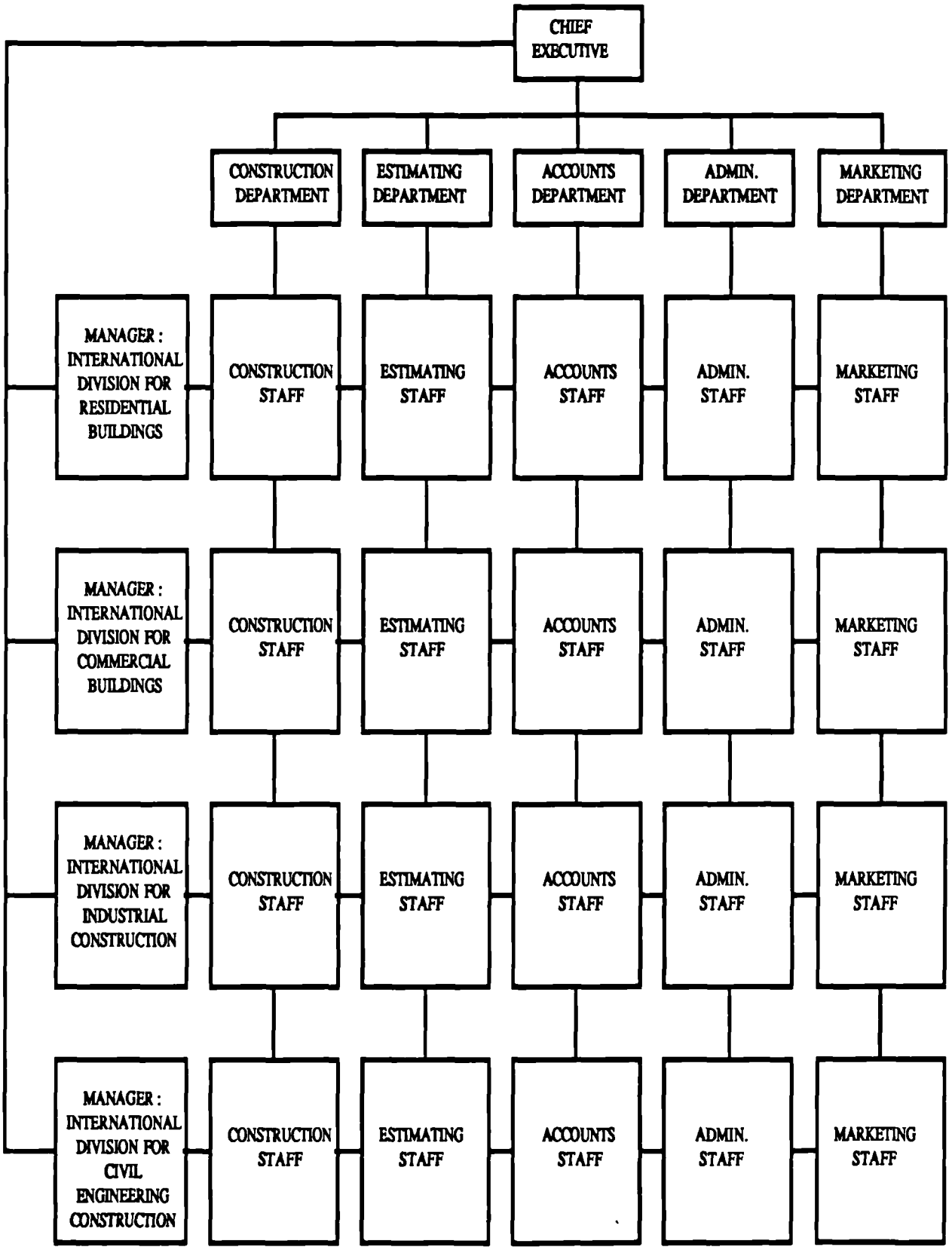



FIGURE 13.6. MATRIX STRUCTURE

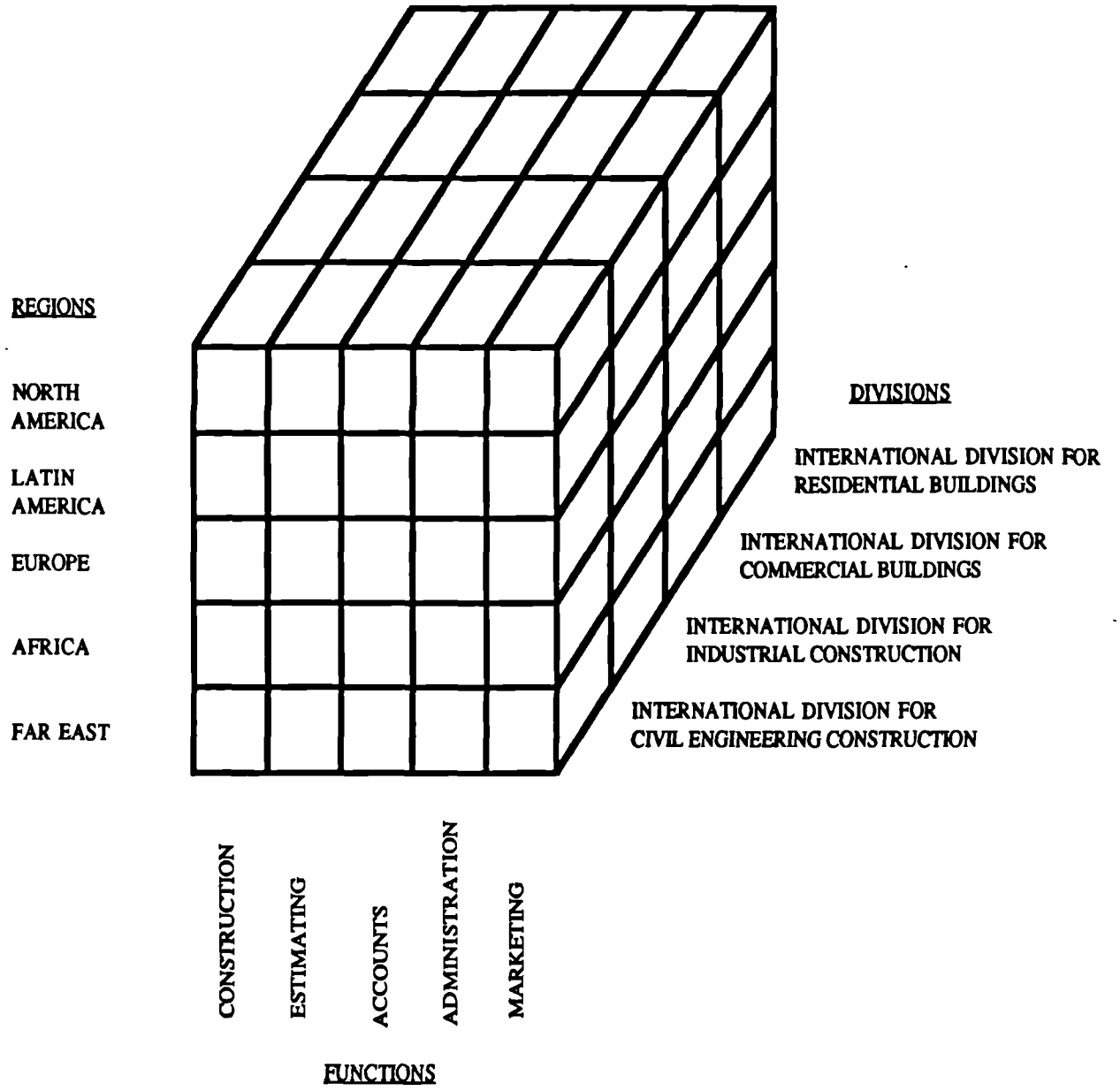



FIGURE 13.7. COMPLEX STRUCTURE

marketing responsibilities.

Friedman (1984) also deals with the organisational life cycle which an organisation progresses through as successive needs arise. Friedman (1984) notes that as organisations grow and mature, they pass through changes in structure, roles, relationships and interactions within the framework of their respective organisational life cycles. A four-stage growth process - entrepreneurial, functional/bureaucratic, divisional, matrix - is thereby discernible. This may spontaneously portray the level of marketing orientation adopted by an organisation. An organisational life cycle, however, does not necessarily reflect the management style of a marketing organisation which, according to Friedman (1984), can either be formal or informal, centralised or decentralised, autocratic or democratic, mechanistic or organic, etc., among others. The marketing organisation

style adopted should, nevertheless, take into account the peculiarities of the company and its market place, the industry within which it is working, as well as its competitive element. In reviewing the strategic growth alternatives opened to construction firms, Friedman (1984) has, likewise, emphasised the influence different growth strategies have on marketing and organisational activities. Three strategic options were identified :

1. Concentration or intensive growth - where the opportunities available are extended from within a company's current operations.
2. Integrated growth - where opportunities may be created by backward, forward, horizontal or vertical integration with a company's current activities, and
3. Diversification - where new areas are entered into or new services added.

In the light of these contentions, Friedman (1984) suggests that the marketing function in the larger construction companies may be organised on the basis of departments, divisions, groups, subsidiaries or branch offices. This basis, however, tends to depend on the size of the company - i.e. whether the company concerned is small, medium or large. Along similar lines, Moore's (1984) study of the marketing procedures and management in contracting companies suggests that the organisational types and structures adopted are, again, likely to vary according to the size of the enterprise. As such, it is not possible to design a marketing organisation structure which applies to every companies.

## 13.13 A MARKETING THEORY OF THE FIRM

Having dealt with the organisational issues of marketing in the previous sections, attention is now turned to exploring how firms make marketing decisions and whether a marketing theory of the firm can be constructed. In the case of business decision-making, the major classical work undoubtedly belongs to Cyert and March (1963) in their detailed observations of the procedures firms adopt in making decisions. Accordingly, Cyert and March (1963) have utilised these observations as the basis for constructing a theory of decision-making within business organisations. Among others, the major behavioral concepts which they uncovered included collective bargaining, organisational slack and coalitional influences. The firm is seen to avoid uncertainty by adhering strictly to regular and standard operating procedures, and where conflicts are resolved by a quasi-resolution among those concerned.

The landmark work, in the case of a marketing theory of the firm, appears to has been furnished by Anderson (1982) in a paper to the Journal of Marketing in 1982. Therein, Anderson (1982) argues that the existing theories of the firm under the auspices of economics, finance and management are insufficient in varying degrees for developing the necessary conceptual underpinnings for marketing. In reviewing the traditional approaches to a theory of the firm, Anderson (1982) has given a detailed account of the problems faced in developing a marketing theory of the firm. In essence, two approaches to the review may be identified - the economic

approach and the behavioral approach - as can be seen in Figure 13.8. In so far as the economic approach is concerned, three models have been suggested by Anderson (1982). These are the Neoclassical model, Market Value model and Agency Costs Model. Similarly, both the Behavioral model and the Resource Dependence model make up the behavioral approach.

Proponents of the Neoclassical model have emphasised profit maximisation in a situation which assumes perfect information is available. Maximising, not satisficing, profit is the order of the day. However, the risk element which is ignored by the Neoclassicists may consequently lead to sub-optimal decisions. In the Market Value model, each major decision is treated as an investment using Net Present Value analysis. This overcomes the deficiency of the Neoclassical model because the risk element is now accounted for in the Internal Rate of Return used in the Net Present Value analysis. The Market Value model thus attempts to maximise present market value in decision-making. With the gradual separation of ownership and control

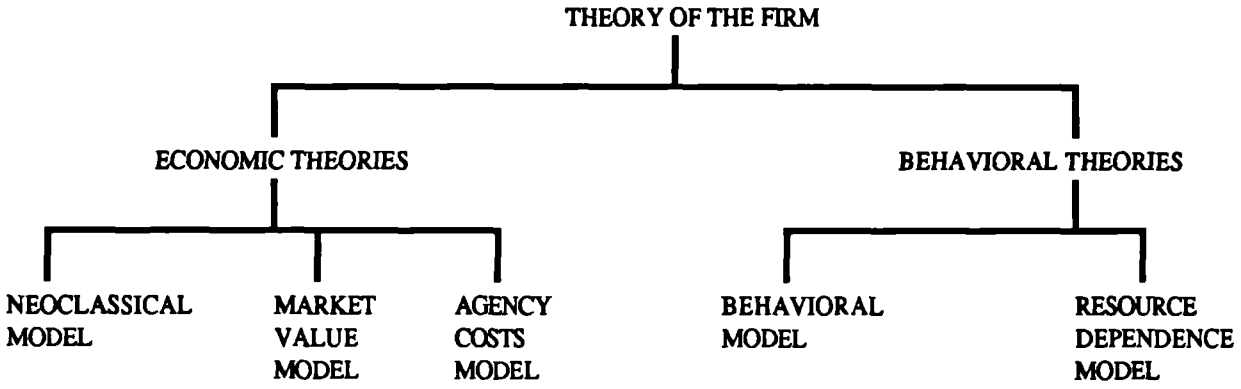



FIGURE 13.8. : COMPONENTS OF A MARKETING THEORY OF THE FIRM

within the firm, especially for public listed companies, the Agency Costs model eventually comes into being. Profitability and maximisation strategies may no longer be the sole preoccupation of managers compared to owners in both the Neoclassical and Market Value models. As a result of the inevitable conflicts in behaviour between owners and managers due to different sets of self-interests, the economic approach has inevitably gave way to the behavioral approach.

Proponents of the Behavioral model have suggested the existence of coalitions both within and outside the firm. The decision-making process is now operated within a negotiative framework between various coalitions - suppliers, production, finance, personnel, marketing, etc. A satisficing, rather than maximising, perspective tends to prevail in the Behavioral model. In yet another development, the Resource Dependence model suggests that despite the existence of various coalitional groups, the final decision-making process still hinges upon one's ability to procure the necessary resources from their environments - i.e. from the external coalitions.

An attempt to rationalise these existing theories of the firm has led Anderson (1982)

to propose an alternative Constituency-based theory of the firm where marketing may be taken into account. In both the Economic Theories and Behavioral Theories, Anderson (1982) argues, there are constituencies or functions such as the other coalitions of production, finance, personnel, marketing, etc., which interact between one another and have their own sub-goals and objectives. Following the Constituency-based theory of the firm, Anderson (1982) suggests that marketing has to, firstly, reconcile between the various factions within the firm and, secondly, attempts to integrate marketing concepts into long-term strategies. In essence,

> "The constituency model of the firm suggests that marketing's role in strategic planning must be that of a strong advocate for the marketing concept. Moreover, its advocacy will be enhanced to the extent that it effectively communicates the true meaning of the marketing concepts in terms that are comprehensible to other coalitions in the firm. This requires an intimate knowledge of the interests, viewpoints and decision processes of these groups (Anderson, 1982:24)."

It would appear that the Constituency model propounded by Anderson (1982) has advocated a contingency approach in so far as the utilisation of hybrid organisation structures is concerned. Consistent with the appeals in various marketing literature, Zeithaml, Varadarajan and Zeithaml (1988) have recognised that the contingency approach does offer an alternative means for generating theories in marketing. Howard (1983), in a close pursuit of Anderson's (1982) earlier works, had tried to generate yet another marketing theory of the firm. However, apart from hypothesising that a successful company is likely to be one which is client-driven, Howard's (1983) contentions do not appear to offer any other significant headway towards the construction of a marketing theory of the firm.

## 13.14. A REVIEW OF SOME OF THE RELEVANT EMPIRICAL STUDIES

In the light of the theoretical backgrounds enunciated so far, this section will deal briefly with how the various constructs espoused therein have been appropriately examined and tested by the empiricists, both general and specific to construction.

### 13.14.1. BRITISH INSTITUTE OF MANAGEMENT (1970)

In one of the earlier studies undertaken by the University of Bradford's Management Centre, on behalf of the British Institute of Management (BIM), into the marketing organisations of British industry, 550 companies were surveyed and studied. The BIM's (1970) findings revealed that the majority of the firms studied have found it necessary or helpful to design organisation charts for their marketing activities which are typically organised on the basis of product groups, market/customer groups or geographical locations. The findings further revealed that the larger firms tend to have more complex marketing structures. Where the conduct of marketing activities is concerned, a significant percentage (39%) of the firms studied have frequently used a combination of methods to structure their marketing activities.

13.14.2. LANSLEY, SADLER AND WEBB (1974)

Lansley, Sadler and Webb (1974), in their study of 50 small and medium size printing and building firms, have produced further evidence in favour of the contingency approach to organisation. In adopting the Burns and Stalker (1961) model for their initial studies, they have encountered both theoretical and practical difficulties in applications at two levels. Firstly, the firms studied have appeared to combine both the mechanistic and organic structures at one and the same time. Secondly, they also claimed that the Burns and Stalker (1961) model were overly simplified and hence have failed to reflect the immense complexities and variabilities of real-life management structures. On the basis of their own observations, Lansley, Sadler and Webb (1974) concede that the observed organisational issues cannot be gainfully reduced to the single dimension as suggested by Burns and Stalker (1961). Because different types of building firms have encountered quite different tasks, different forms of organisation structures are therefore required. Based on their observations, Lansley, Sadler and Webb (1974) have hypothesised the following groupings and related structural requirements :

| Groupings | | Structural Requirements |
|---|---|---|
| 1. General contractors | → | Organic structure |
| 2. Specialist contractors | → | Bureaucratic structure |
| 3. Small works firms | → | Mechanistic structure |
| 4. Firms which subcontract most of the actual construction works | → | Anarchical structure |

In their review of the relationship between structure and organisational effectiveness, two main issues were examined which best sum up the crux of their study :

1. Firstly, whether firms within an industry operating under the same conditions or subject to the same situational factors will adopt similar organisation structures, and
2. Secondly, whether the same firms operating as such can adopt a single "best" structure which will enable them to perform better than firms with other structures.

13.14.3. BELL (1981)

Bell's (1981) study of marketing among eight of the larger domestic construction firms within the UK has offered some insights into their attitudes towards the marketing concept. However, Bell's (1981) analysis did not take into account the organisational aspects nor the marketing structures of firms involved with international contracting.

In so far as the organisational aspects within the domestic scene are concerned,

Bell's (1981) findings have revealed that the marketing structure for each firm is affected by several factors unique to that firm alone. A firm-by-firm assessment is therefore required for any analysis. An approach of this nature, cited by Bell (1981), has been noted by Cochlin (1970) who addressed the issue thus :

> "the building industry is a complex one in which to operate. Therefore, it is essential that firms should organise marketing within their organisations in whatever way they best feel suits their business both for today and tomorrow (Cochlin, 1970:121)."

This, it would appear, reflects closely a situational approach to structuring marketing organisations in construction firms.

13.14.4. IRWIG (1984)

In an attempt to explore the relationship between firm size, markets served, technology used and the structural configuration employed, Irwig (1984) has analysed the structures of 6 highly successful general contracting firms in the Cleveland area, USA. In this study, Irwig (1984) has related the analysis strongly with the works of Mintzberg (1979) which Irwig (1984) believes provide a heuristic framework for classifying organisations as well as for monitoring structural shifts in different types of organisations. Irwig's (1984) study has mainly been concerned with the influence of contingency factors on organisational configurations and their resultant effectiveness. An attempt was also made to analyse which of these contingency factors exert the greatest pull on an organisation and therefore have the strongest influence on organisational characters. Four groups of independent contingency or situational factors were subsequently identified; each of which have a strong influence on the dependent variables (i.e. the organisational configurations). These four groups were associated with :

1. The size and age of the organisation.
2. The technology used by the organisation.
3. The environmental conditions, and
4. The power imposed by organisational stake-holders.

13.15. SOME CONCLUSIONS ON THE CONTINGENCY APPROACH APPLIED TO ORGANISATION DESIGN

The various empirical studies carried out by others and as addressed in the immediate preceding sub-sections above are not all-encompassing. Several analyses have been carried out elsewhere by others which, in one way or another, may provide further impetus towards a clearer understanding of how the marketing function is organised within a firm. However, these latter analyses have less impact on the subject-matter of this study here compared with the empirical findings noted above. Wiechmann and Pringle (1979), for instance, have provided evidence of the organisational difficulties faced by management from both the headquarters and foreign subsidiaries. Chong (1986), likewise, in a study of domestic and foreign manufacturing firms operating in Malaysia, has revealed different patterns of

marketing organisations in both cases. While foreign firms prefer both the functional and geographical forms of organisation, domestic firms generally tend to lean towards a geographical orientation in view of their heavy commitments to sales. From the investigations examined in this Chapter so far, two debatable points of views may be inferred. Firstly, one may argue that the basic management principles do apply and an organisation design may well start with an "ideal or single best" way of organising companies. On the other hand, pragmatists, likewise, are entitled to argue that the first viewpoint is wrong in so far as there is a need to "fit or match" a structure to the special and unique situation faced by an organisation. Organisation theorists such as Drucker (1977) has, nonetheless, not remained indifferent to organisational issues of this nature. As Drucker (1977) maintains,

> "The approach to organisation design through the ideal model or organisation structure is not 'theory'. It is eminently practical. But the pragmatic approach through explicit definition of assumptions and their testing in the reality of the organisation is not 'muddling through' or 'patchwork'. It is theoretically sound in a situation where there are alternative possible models. Organisation design requires both concepts and experimental validation - or it is faulty design (Drucker, 1977:546)."

Although there is no reason why an organisation should not be structurally changed as frequently as one desires, there are however imminent problems associated with bewildering changes. As Koontz and Weihrich (1988) have pointed out, for practical purposes, people, especially highly trained professionals, may find it extremely difficult to put up with intolerable or frequently disruptive changes in the organisation. In their study on organisation structure, management style and company performance as noted above, Lansley, Sadler and Webb (1974) have concluded that "packaged solutions" in the field of organisation design are unlikely to be helpful compared with solutions which are individually "tailored" to match the structural design problems on hand. However, the difficulty in measuring the amount of organisational uncertainty, which may stem from many sources, has remained unresolved. This suggests, Spillard (1985) argues, that the measure of a firm's performance or success can become not only crude but can also be correspondingly less conclusive. Spillard (1985) has similarly remained critical of the discussions over organisational choice because these had proceeded as though the selection is made on the basis of one or the other organisational type to the exclusion of all others. On the contrary, Spillard (1985) concludes that examples of every type are usually exhibited within the larger organisations.

Although programmed changes to the structures of organisations have frequently been advocated as the least expensive, quickest and most effective way of overcoming organisational problems, Perrow (1973) nonetheless concludes that a change in the formal structure alone is unlikely to produce the results desired. The types and nature of changes needed would undoubtedly be dependent on the results desired, which are again inextricably linked with the operating environment. The

contingency or situational approach to organisation design / changes, as Pfeffer and Salancik (1977) have noted, reflects the will of those who would design or change organisations to match the size, technological and environmental requirements of a firm. This approach, in effect, represents a logical extension of the rational model of organisations. In their studies of the contingency approach as applied to marketing, Zeithaml, Varadarajan and Zeithaml (1988) have stressed that the contingency approach lies midway between the extremes of universality and uniqueness. On the one hand, there are those who believe in the existence of universal management and organisation principles. Likewise, there are those who argue that each organisation is unique and each situation must therefore be analysed separately.

In an insightful revisit to "The Management Theory Jungle", Koontz (1980) has provided an operational management approach which has many things in common with situational management. Koontz (1980) contends that the operational management approach is not concerned with all the important knowledge in the various fields, but only that which is deemed to be most useful and appropriate for the occasion one needs to manage. As such, knowledge is only drawn eclectically from the various schools and approaches available. Koontz (1980) suggests that an operational management theorist would similarly function in the capacity of a situationalist in so far as the applications of management principles and techniques are concerned. Koontz (1980) has also been instrumental in tracing the evolution of management from the traditional approach which subsequently leads to the situational approach. The stages of development were as follows :

1. In both the Classical and Human Relations approaches, criticisms were levied because organisational issues were simply treated as absolute when, in effect, these may not always be so.
2. There is subsequently a need to reconsider an "either-or" situation to account for all conceivable possibilities.
3. In order that the whole may be meticulously covered, a systems approach is needed.
4. However, in dealing with the whole, much effort is required, some of which may not actually be necessary at all. It is therefore rational and logical to have a working knowledge of all the available principles / techniques and to subsequently adopt a contingency approach to match the relevant principles / techniques to the appropriate situation.

Koontz (1980) believes the contingency or situational approach is an outgrowth of the earlier classical theories which advocated the one best way without taking into due consideration the need to tailor managerial practice to the actual situation. It would seem, as Koontz (1980) has noted, that there is both science and art in applying the contingency approach - <u>science</u> in the sense of the theoretical knowledge itself, and <u>art</u> in the sense of applying this knowledge to practice. The contingency view is therefore simply a means of differentiating between science (i.e. knowledge) and

art (i.e. practical applications). These are two different but mutually complementary activities linked within the decision-making process. The model for a situational perspective, shown in Figure 13.9, illustrates their interactions clearly. In short, a contingency or situational perspective does not reflects a theory *per se*. Rather, it demonstrates a rational approach to making managerial and organisational decisions within its framework of environmental constraints and available resources.

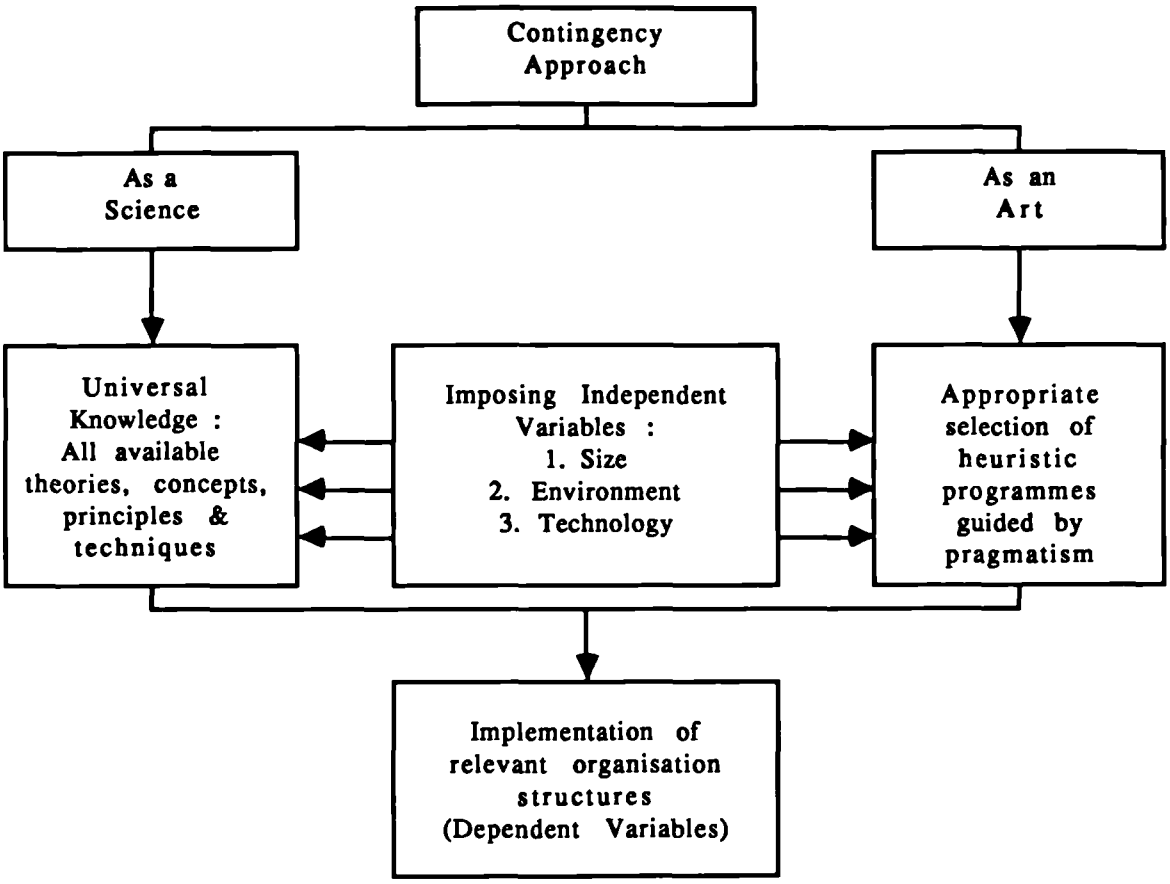



FIGURE 13.9. : A SITUATIONAL PERSPECTIVE MODEL

## 13.16. PRELUDE TO FIELD STUDY

It is the intention here to examine how marketing organisations are structured by contracting firms involved with foreign construction projects. In this respect, the field study has been undertaken with an a priori assumption that marketing activities have been carried out by international construction firms regardless of whether these have been considered or recognised as marketing activities by the firms concerned. An investigation of marketing organisations in international construction firms is also unlikely to be meaningful unless a theoretical basis can be found and used to underpin the very fundamentals of this study. For this purpose, the contingency or situational approach to organisation has been adopted. Likewise, before the fieldwork commenced, it has been assumed that the marketing departments in international construction firms are organised using a situational

approach. For the purpose of this study, two hypotheses have been formulated :

1. There is no one single, "universal" best way to design a marketing organisation for international construction companies.
2. Subject to an uncertain operating environment, construction companies operating in international markets are more likely to adopt a contingency approach to organising their marketing structures.

Support for the validity of this field study can be obtained from Shutt (1982) who has advocated four possible stages in the formulation of marketing policies - namely, analysis of the company, analysis of material sources, analysis of the market, and analysis of the relevant external influences. A study of the how's and why's of marketing organisations in international construction firms would therefore provide a useful tool for formulating marketing policies because the first concern in Shutt's (1982) analyses - that of the company structure and organisation - can be changed and modified much more readily than the other three areas since the company now has a direct control over it. As a tool, its usefulness can be seen by way of its strongest feedback loop into marketing policies formulation. To facilitate an analysis of this nature, Friedman (1984) has suggested that a study of between 15 to 25 contractors will be sufficient for trends to surface. Accordingly, the field study on marketing organisations in international construction firms has been carried out here in Chapter 14 with these justifications in mind.

## 13.17. SUMMARY

Organisational issues within the context of existing theories are examined. Both the Classical and Human Relations Approaches to management theories which influence organisation structures and the structural options available are reviewed. The development of traditional management theories have generally created much confusion. Difficulties can be encountered in the coverage of vastly different subject areas. The contingency approach to organisation was identified as an option to circumvent these difficulties. The works of Woodward (1958), Burns and Stalker (1961) and Lawrence and Lorsch (1967) were examined as a possible alternative to traditional management theories. Based on the theoretical alternatives available, seven structural options for organising the marketing function were constructed for international contracting firms. The steps for designing marketing organisations and a marketing theory of the firm were reviewed. Other research studies which relate to construction / marketing organisations were also highlighted and their results shown. Some of the arguments which support the contingency approach as a viable model for organising the marketing function in companies were examined.

REFERENCES


1 Anderson P.F., "Marketing Strategic Planning and the Theory of the Firm", Journal of Marketing, Vol. 46, Spring 1982, pp. 15-26.

2 Argyris C., "The Impact of the Formal Organisation upon the Individual", in Pugh D.S. (Ed.) "Organisation Theory. Selected Readings", Penguin Books, 1971, pp. 261-278. (Reprinted from Argyris C., "Understanding Organisational Behaviour", Tavistock, 1960.)

3 Baker M.J., "Marketing. An Introductory Text", Macmillan, 1979.

4 Bell R., "Marketing and the larger construction firm", Chartered Institute of Building, Occasional Paper No. 22, 1981.

5 Blau P.M., "A Formal Theory of Differentiation in Organisation", American Sociological Review, April 1970, pp. 201-218; cited in Kast F.E. and Rosenzweig J.E. , "Organisation and Management. A Systems and Contingency Approach", Fourth Edition, McGraw-Hill, 1985, p. 244.

6 Bolt G.J., "Marketing in the EEC", Kogan Page, 1973.

7 British Institute of Management, "Marketing Organisation in British Industry. A Survey of current practice in 550 companies", BIM Information Summary 148, April 1970.

8 Brooke M.Z. and Remmers H.L. (Eds.), "The International Firm", Pitman Publishing Ltd., 1977.

9 Burns T., "Mechanistic and Organismic Structures", in Pugh D.S. (Ed.), "Organisation Theory. Selected Readings", Penguin Books, 1971, pp. 43-55. (Reprinted from Burns T., "Industry in a new age", New Society, 31 January 1963, pp. 17-20.)

10 Burns T. and Stalker G.M., "The Management of Innovation", Social Science Paperbacks in association with Tavistock Publications, 1961.

11 Chandler A., "Strategy and Structure", MIT Press, 1962.

12 Child J., "Organisation. A Guide to Problems and Practice", Harper & Row Publisher, 1977.

13 Chong S.J., "Comparative Marketing Practices of Foreign and Domestic Firms in Developing Countries : A Case Study of Malaysia", Malaysian Management Review, Vol. 21 No. 3, December 1986, pp. 64-69.

14 Christopher M., Kennedy S.H., McDonald M. and Wills G., "Effective Marketing Management", Gower, 1980.

15 Christopher M., Lancioni R. and Gattorna J., "Managing International Customer Service", International Marketing Review, Spring 1985, pp. 65-70.

16 Cochlin D., "The Marketing Function", Building 218, 15 May 1970, pp. 119-121.

17 Corey E.R. and Star S., "Organisation Strategy : A Marketing Approach", Harvard University Press, 1971; cited in Piercy N., "Marketing Budgeting. A Political and Organisational Model", Croom Helm, 1986, p. 122.

18 Cundiff E.W. and Hilger M.T., "Marketing in the International Environment", Prentice-Hall Inc., 1984.

19 Cyert R.M. and March J.G., "A Behavioral Theory of the firm", Prentice-Hall Inc., 1963.

20 Doyle P., "Management Structures and Marketing Strategies in UK Industry", European Journal of Marketing, Vol. 13 No. 5, 1979, pp. 319-331.

21 Drucker P., "Management", Pan Books, 1977.

22 Friedman W., "Construction Marketing and Strategic Planning", McGraw-Hill, 1984.

23 Galbraith J., "Designing Complex Organisations", Addison-Wesley, 1973.

24 Gilligan C. and Hird M., "International Marketing : Strategy and Management", Croom Helm, 1986.

25 Howard J.A., "Marketing Theory of the Firm", Journal of Marketing, Vol. 47, Fall 1983, pp. 90-100.

26 Huse E.F., "Organisation Development and Change", Second Edition, West Publishing Co., 1980.

27 Irwig H.G., "Organisational structures of general contractors", in Proceedings of the 4th International Symposium on "Organisation and Management of Construction", CIB W65, Waterloo, Canada; in Handa V.K., (Ed.), "Volume 1 : Mega Projects, Organisation and Management", 1984, pp. 213-224.

28 Kast F.E. and Rosenzweig J.E., "Organisation and Management. A Systems and Contingency Approach", Fourth Edition, McGraw-Hill, 1985.

29 Keegan W.J., "Multinational Marketing Management", Third Edition, Prentice-Hall, 1984.

30 Kobayashi N., "The Present and Future of Japanese Multinational Enterprises. A comparative analysis of Japanese and U.S.-European Multinational Management", International Studies of Management and Organisation, Vol. XII No. 1, 1982, pp. 38-58.

31 Koontz H., "The Management Theory Jungle", Journal of the Academy of Management", Vol. 4 No. 3, December 1961, pp. 174-188.

32 Koontz H., "The Management Theory Jungle Revisited", Academy of Management Review, Vol. 2, 1980, pp. 175-187.

33 Koontz H. and Weihrich H., "Management", Ninth Edition, McGraw-Hill, 1988.

34 Koontz H., O'Donnell C. and Weihrich H., "Essentials of Management", Fourth Edition, McGraw-Hill, 1986.

35 Kotler P., "Marketing Management. Analysis, Planning, Implementation, and Control", Sixth Edition, Prentice-Hall Inc., 1988.

36 Lansley P., Sadler P. and Webb T., "Organisation Structure, Management Style and Company Performance", OMEGA, The International Journal of Management Science, Vol. 2 No. 4, 1974, pp. 467-485.

37 Lawrence P.R. and Lorsch J.W., "Organisation and Environment : Managing Differentiation and Integration", Harvard University Graduate School of Business Administration, Division of Research, 1967.

38 Lorsch J.W., "Organisation Design : A Situational Perspective", Organisational Dynamics, Vol. 6 No. 2, A Quarterly Review of Behavioral and Management

Sciences, American Management Associations, Autumn 1977, pp. 2-14.

39 Majaro S., "International Marketing. A strategic approach to World Markets", Revised Edition, George Allen & Unwin, 1982.

40 Mintzberg H., "The Structuring of Organisations", Prentice-Hall Inc., 1979.

41 Mintzberg H., "Organisation design : fashion or fit ?", Harvard Business Review, January-February 1981, pp. 103-116.

42 Moore A.B., "Marketing Management in construction : A guide for contractors", Butterworths, 1984.

43 Perlmutter H.V., "The Tortuous Evolution of the Multinational Corporation", Columbia Journal of World Business, Vol. IV, January-February 1969, pp. 1-18.

44 Perrow C., "The Short and Glorious History of Organisation Theory", Organisational Dynamics, Vol. 2 No. 1, A Quarterly Review of Behavioral and Management Sciences, American Management Associations, Summer 1973, pp. 2-15.

45 Pfeffer J., "Power in Organisations", Pitman, 1981.

46 Pfeffer J. and Salancik G.R., "Organisation Design : The Case for a Coalitional Model of Organisations", Organisational Dynamics, Vol. 6 No. 2, A Quarterly Review of Behavioral and Management Sciences, American Management Associations, Autumn 1977, pp. 15-29.

47 Piercy N., "Marketing Budgeting. A Political and Organisational Model", Croom Helm, 1986.

48 Pugh D.S. (Ed.), "Organisation Theory. Selected Readings", Penguin Books, 1971.

49 Ruekert R.W., Walker Jr. O.C. and Roering K.J., "The Organisation of Marketing Activities : A Contingency Theory of Structure and Performance", Journal of Marketing, Vol. 49, Winter 1985, pp. 13-25.

50 Shutt R., "Economics for the construction industry", Longman, 1982.

51 Spillard P., "Organisation and Marketing", Croom Helm, 1985.

52 Wiechmann U.E. and Pringle L.G., "Problems that plague multinational marketers", Harvard Business Review, July-August 1979, pp. 118-124.

53 Woodward J., "Industrial Organisation : Theory and Practice", Oxford University Press, 1965.

54 Woodward J., "Management and Technology", in Pugh D.S. (Ed.), "Organisation Theory. Selected Readings", Penguin Books, 1971, pp. 56-71. (Reprinted from Woodward J., "Management and Technology", HMSO, 1958.)

55 Zeithaml V.A., Varadarajan P.R. and Zeithaml C.P., "The Contingency Approach : Its Foundation and Relevance to Theory Building and Research in Marketing", European Journal of Marketing, Vol. 22 No. 7, 1988, pp. 37-64.

CHAPTER FOURTEEN

ORGANISATION OF MARKETING IN INTERNATIONAL CONSTRUCTION FIRMS : PRACTICE

## 14.1 RESEARCH METHODOLOGY

The research methodology employed in this study essentially consists of the completion of questionnaire survey forms and the use of indepth semi-structured interviews with senior executives of construction companies. The sampling frame for the selection of companies was taken from The New Civil Engineer Contractors File (1989 Edition) published by the Institution of Civil Engineers (London) and The Directory of British Construction Contractors (1988 Edition) published by the Export Group for the Constructional Industries (London). Because the number of UK-based contractors who have operated actively overseas is already small in population, purposive sampling was adopted here to ensure that a representative sample can be obtained to include companies with different degree of participation in the foreign market. There is, however, a tendency for some firms, especially the larger ones, to be more active than others in international operations. As a result, there exists an unavoidable bias for the chosen sample to include a greater number of larger firms.

As noted above, a two-pronged approach was adopted for the field study. This, in essence, seeks to examine the following :

1. What organisational alternatives do international contracting companies think are appropriate for organising their overseas marketing operations ?
2. How do these companies actually structure their foreign marketing operations for overseas markets ?

A list of questions and a set of survey form were prepared for testing the two hypotheses formulated in Chapter Thirteen. The validity of these tools were then checked in consultation with three organisations involved with marketing and international construction contracting. These are the Construction Industry Group of the Chartered Institute of Marketing, the EGCI, and the Building Employers Confederation. In the light of their comments and recommendations, the list of questions and survey form were accordingly modified (see Appendix 2).

From the ICE and EGCI directories, a total of 31 firms were identified. The names of either their Chairman, Chief Executive or Managing Director were then noted. Survey forms and letters requesting for their co-operation were subsequently dispatched. The purpose of this research study was also explained in some details in these letters. These were staggered and sent out in five different batches between April 1989 and June 1989. Telephone calls and follow-up letters were respectively made and sent to those who did not respond. Letters of persuasion were also sent to those companies who have at first refused to participate. This persistent approach seems to has a favourable effect in reducing the number of rejections. Between April 1989 and August 1989, a total of 21 firms were surveyed. A response rate of

some 68%. was thus recorded for the survey. Eleven indepth interviews were also conducted from among these companies. The good response rate may be attributed to the interests generated within the respondent companies as a result of the forthcoming Single European Market in 1992. An undertaking was also given by the writer to send a summary report of the research findings to all participating firms. This incentive has undoubtedly encouraged many organisations to respond favourably. Several reasons were offered by six companies who declined to participate in the study. These are :

1. There is a limit on their part to meeting the number of requests of this nature.
2. A strict adherence to the policy of participating only in Government sponsored research studies and surveys.
3. For reason of confidentiality, no assistance can therefore be rendered.
4. Overseas activities are of a very minor nature, and
5. Professed to be extremely busy at the moment and therefore unable to assist in projects of this nature.

There were no reply from 4 other companies.

The following sections set out the findings and observations of this field study pertaining to the organisation of overseas marketing operations in 21 respondent companies.

## 14.2. DETAILS OF RESPONDENTS

Although the initial correspondences were directed to the Chairman, Chief Executive or Managing Director of each company who have the ultimate authority to decide on co-operation for this study, quite frequently, another senior executive concerned with sales or marketing was subsequently assigned to deal with the writer's enquiries. Likewise, there were also cases where although the first letter was addressed to a parent holding company, the writer's request for an interview was subsequently referred to and handled by a subsidiary of that company. The details of these companies and job titles of persons responding to the questionnaire survey are given in Table 14.1.

A total of 12 subsidiaries can be identified out of the sample size of 21. The sample is also heavily biased towards companies which are British-owned. The approximate total turnovers and overseas contents of these companies between 1986 and 1988 can be seen in Table 14.2, arranged in descending order according to their turnovers in 1988. These range from a high of approximately £1.95 billion to a low of approximately £40 million. (These include both consolidated group turnovers as well as turnovers from individual subsidiary). Similarly, their overseas contents vary from between 1.5% to 100%. This diversity provides for the consideration of a wide cross-section of construction companies.

| Job Titles of Respondents | Details of Companies | |
|---|---|---|
| | Subsidiary | Ownership |
| Chairman | | UK |
| Chairman | Yes | UK |
| Chairman | Yes | Foreign |
| Chief Executive | | UK |
| Managing Director | Yes | Foreign |
| Managing Director | Yes | UK |
| Managing Director | Yes | UK |
| Joint Managing Director | Yes | UK |
| Director of International Business Development | | UK |
| Business Development Director | | UK |
| Marketing & Business Development Director | Yes | UK |
| Director of Group Marketing | Yes | UK |
| Overseas Director | | UK |
| Head of Strategic Planning | | UK |
| Group Marketing Manager | | UK |
| Marketing Manager | | UK |
| Marketing Manager | | UK |
| Business Development Manager | Yes | Foreign |
| Sales Manager | Yes | UK |
| London Manager | Yes | UK |
| Public Relations Manager | Yes | UK |

TABLE 14.1. DETAILS OF COMPANIES AND RESPONDENTS

## 14.3. GEOGRAPHICAL OPERATIONS OF RESPONDENT COMPANIES

As a continuation of the regional analysis carried out in Chapter Ten (see Section 10.4), respondent companies were also asked to indicate which regions of the world they have worked in before. In tandem with Chapter Ten, a total of 19 regional areas were included for consideration. Respondents were then requested to indicate their intensities of operations in each region along three scales - namely, "Mainly", "Occasionally", and "Not At All". The results of their geographical operations are depicted in Table 14.3.

The analysis shows that 67% of all the companies have predominately worked in Northern Europe (including the UK). In line with the UK-ownership bias as

| Company | 1988 | | 1987 | | 1986 | |
|---|---|---|---|---|---|---|
| | Approx Turnover (£m) | Approx % From Overseas | Approx Turnover (£m) | Approx % From Overseas | Approx Turnover (£m) | Approx % From Overseas |
| A | 1950 | 20 | 2310 | 20 | 4320 | 20 |
| B | 1730 | 22 | 1480 | 25 | 1460 | 29 |
| C | 1340 | 33 | 1030 | 27 | 507 | 26 |
| D | 991 | 1.5 | 793 | 2.5 | 636 | 5 |
| E | 902 | 27 | 793 | 30 | 812 | 30 |
| F | 794 | 10 | 711 | 10 | 751 | 15 |
| G | 550 | 60 | 500 | 60 | 500 | 60 |
| H | 343 | 2 | 267 | 4 | 239 | 10 |
| I | 330 | 40 | 300 | 35 | 290 | 35 |
| J | 205 | 10 | 249 | 27 | 300 | 45 |
| K | 182 | 5 | 143 | 5 | 146 | 7 |
| L | 181 | 5 | 145 | 6 | 140 | 5 |
| M | 170 | 14 | 160 | 20 | 155 | 20 |
| N | 147 | 100 | 79 | 100 | 39 | 100 |
| O | 98 | 72 | 82 | 74 | 54 | 83 |
| P | 95 | 100 | 90 | 100 | 120 | 100 |
| Q | 88 | 63 | 72 | 68 | 66 | 64 |
| R | 80 | 55 | 60 | 45 | 60 | 50 |
| S | 80 | 50 | 90 | 60 | 100 | 70 |
| T | 47 | 100 | 68 | 100 | 72 | 100 |
| U | 40 | 8 | 22 | 10 | 27 | 15 |

TABLE 14.2. APPROXIMATE TURNOVERS AND OVERSEAS CONTENTS OF PARTICIPATING COMPANIES

indicated by Table 14.1, the close proximity of this region appears to account for the high operational intensity in Northern Europe. However, 57% of all the respondent companies have also worked mainly in the Middle East. This perhaps indicates their level of participation in West Asia during the boom years of the 1970s and early 1980s. The North American market constitutes another major region where 48% of all the companies have worked in before. Table 14.3 also shows that 76% of all the respondent companies have never worked in the USSR before. This contrasts sharply with West Asia where all the respondent companies have at least worked there occasionally.

## 14.4. TYPE OF WORK CARRIED OUT BY RESPONDENT COMPANIES

Respondent companies were also asked to indicate the type of work carried out by them overseas. Again, they were requested to indicate their intensities of operations

| Intensity of operations / Regions | Mainly (%) | Occasionally (%) | Not At All (%) |
|---|---|---|---|
| Western Europe | 29 | 43 | 29 |
| Eastern Europe | 5 | 48 | 48 |
| USSR | 10 | 14 | 76 |
| Northern Europe | 67 | 10 | 24 |
| Southern Europe | 19 | 62 | 19 |
| North America | 48 | 19 | 33 |
| South America | 5 | 57 | 38 |
| Central America | 5 | 43 | 52 |
| Caribbean America | 14 | 48 | 38 |
| North Africa | 29 | 48 | 24 |
| South Africa | 10 | 29 | 62 |
| Central Africa | 5 | 33 | 62 |
| East Africa | 14 | 38 | 48 |
| West Africa | 33 | 33 | 33 |
| Southeast Asia | 33 | 57 | 10 |
| South Asia | 19 | 52 | 29 |
| East Asia | 33 | 33 | 33 |
| West Asia | 57 | 43 | 0 |
| Oceania | 19 | 33 | 48 |

(Some regional percentages may not add up to 100% because of rounding-up discrepancies)

TABLE 14.3. REGIONAL OPERATIONS OF RESPONDENT COMPANIES

in each work type (i.e. Building, Civil Engineering and M&E Works) along three scales, namely, "Mainly", "Occasionally", and "Not At All". The results of this analysis are shown in Table 14.4.

The analysis shows that 71% of all the respondent companies have operated mainly in the field of civil engineering works overseas, followed by building works (62%) and M&E works (38%). The focus on civil engineering works overseas appears to be a response to the needs of foreign governments whose indigeneous industries are specifically lacking in this area of expertise rather than in building works. Because M&E works constitute a highly specialised field of operations, only 38% of all the respondent companies have primarily dealt with this type of work overseas. Within the context of this field study, these include the power and process plant industry.

| Intensity of operations / Type of work | Mainly (%) | Occasionally (%) | Not At All (%) |
|---|---|---|---|
| Building Works | 62 | 29 | 10 |
| Civil Engineering Works | 71 | 24 | 5 |
| M&E Works | 38 | 33 | 29 |

(Total percentage for Building Works does not add up to 100% because of rounding-up discrepancies).

TABLE 14.4. TYPE OF WORK CARRIED OUT BY RESPONDENT COMPANIES

## 14.5. RESPONDENTS' PERCEPTIONS OF MARKETING

As Table 14.1 indicates, the range of job titles used by the respondents has been diverse. It would therefore be of interest to know what their perceptions of marketing are as these appear to have an attitudinal influence on the organisational role of marketing within their companies. From the interviews, it becomes apparent that the marketing concept has often been linked to sales and business development. While some respondents may have a clear understanding of what all these three terms encompass, nevertheless, their organisations often used these terms interchangeably. Hence, a business development executive may also be responsible for the performance of marketing tasks and a marketing executive may be called upon to formulate business development plans. There are also cases where a single executive is responsible for all the three areas of business development, marketing and sales. It would seem that the proper differentiation of appropriate job titles is not important for some companies so long as opportunities are identified and contracts secured and performed profitably. Because of the inevitable overlaps between departments, this may however create confusion as the organisation struggles to define what each group is trying to do. One of the respondent companies used to have a marketing department and a business development department at its head office. However, because of the confusion created by this division, the marketing department was subsequently discontinued and absorbed into the business development department. Likewise, the use of a formal marketing job title may not be consistent within a company. One respondent company who operates in three different countries has a Sales Director in the UK, a Vice-President of Marketing in the United States and a Marketing Manager in West Germany. Although their job titles vary, these executives have exactly the same marketing duties and responsibilities. In another respondent company, the executive responsible for marketing and selling overseas but who happens to be stationed in the UK, actually has the job title of "London Manager".

Business development, as the interviewees revealed, is concerned with looking ahead into the future to identify what the firm should be doing or be prepared to do.

Economic and statistical analyses therefore form part of the business development activities where the company concerned decides what new product or service areas to develop, and which companies, technologies or licences to acquire or buy in order to venture into new areas of business. Marketing, on the other hand, is concerned with determining what the market wants in relation to what the company can supply in terms of products, services, quality and price. Marketing therefore seeks out the projects which the company can turn into sales. This provides the impetus for the sales force whose job involves the actual selling in the field and the identification of who the consultants, financiers and government agencies are. As a result of the close link between business development, marketing and sales, these are often looked upon by some interviewees as a singular function. Their boundary-spanning relationship has been illustrated through activities such as the planned participation in overseas exhibitions and the production of brochures and promotional materials for use by the sales force. However, as most interviewees have recognised, construction marketing is unlike the marketing of fast-moving consumer goods which places an important emphasis on mass media publicity. In the case of construction, because potential clients, government departments and major property developers, etc., are readily identifiable, less reliance is placed on mass media publicity. Instead, construction is very much looked upon as a direct marketing business.

## 14.6. PARENT AND SUBSIDIARY COMPANIES

As the turnover figures given in Table 14.2 indicate, construction companies which have operations in foreign markets are often large by present day standards and as highlighted by the field study, may involve a multiplicity of holding and subsidiary companies. Foreign and domestic subsidiaries may also be involved, each having its own sphere of operations in different products and services, and in different parts of the world. Subsidiaries were often established in each country wherein the company concerned has an interest. The magnitude of this ownership hierarchy can become even more complex when some holding companies are, in turn, subsidiaries of yet another parent company.

Despite the potential problems which may arise as a result of these organisational complexities, the companies concerned do not seem to be unduly perturbed. Where this situation was encountered, it was found that a high degree of autonomy has been given to each subsidiary company to run its own business. There appears to be a tendency to minimise the number of people at the central holding company. As a result of the antipathy towards having a large central headquarter staff, holding companies often delegate much of the decision-making responsibilities to their subsidiaries. Because most people in their individual business know better, it seems that they are not, to a certain extent, really interested in what the centre is telling them. Hence, it becomes difficult for somebody at the centre to have or exert any great influence over the local businesses. In terms of their own organisational forms, some subsidiaries have therefore been allowed to structure their

organisations in ways which best fit their individual business. In these cases, their parent companies have not sought to impose a particular methodology on them as it is obvious that since the subsidiaries are in the business, they know which structure is most appropriate for their particular needs. It would seem that once operational workability has been established, parent companies would not seek to impose any structure on their subsidiaries. However, while it appears that the delegation of decision-making responsibilities to the subsidiaries brings along with it the issue of duplication between subsidiaries of the same holding company, this does not seem to be an area of dire concern for the holding company. Although most subsidiaries are all broadly in the field of construction and engineering, they tend to work in vastly different areas. As such, their marketing activities would be aimed at different groups of customers. While there may be some degree of operational overlaps, it would seem that their approaches will still remain different.

The marketing operations also tend to differ between UK-based subsidiaries of the same holding company in so far as domestic and foreign contracts are concerned. It appears that subsidiaries which focus mainly on construction works in the UK tend to have organised marketing departments while those which deal only with overseas projects tend not to have any formal marketing department. In the latter, the marketing function is often carried out by executives travelling from the UK who may not have any marketing or marketing-related job titles. Where a company has operations both in the UK and abroad, then the domestic and overseas marketing tasks are likely to fall within the sphere of responsibilities of the marketing department in that company. However, the department will now be streamlined to take this dichotomy into account.

There are also cases where both the holding company and its subsidiaries have their own marketing and business development executives. While executives in the subsidiaries are concerned with securing contracts on an individual subsidiary basis, those at the head office of the parent company are more involved with the central planning and coordination for the entire group. The business development and marketing staff of parent companies are mainly responsible for identifying future businesses where their companies' resources and expertise may be directed either into new business functions or into new geographical areas. Apart from having to maintain close coordination with their subsidiary companies, they are also expected to render back-up assistance to each subsidiary so that the overall group marketing function can be carried out effectively. Where foreign projects are concerned, marketing and business development staff at the parent companies are also responsible for developing the territories where their companies are not already represented. This is likely to continue up to a point where they get their first contact in that market. Thereafter, the task of developing the market further is then handed over to either another executive or subsidiary company responsible for that area and who will also eventually provide marketing inputs and support into this and other

surrounding areas.

## 14.7 MARKETING OVERSEAS

The provision of front-line marketing activities in new territories, as noted above, will continue on to generate enquiries and sales efforts to convert these enquiries into contracts. While the major activities of marketing are concerned with the identification of clients, most companies have not failed to establish a crucial distinction between new and existing clients for the obvious reason that each category has its own peculiar features and requirements. In the case of markets which are relatively new, the company would normally send a marketing executive into the country concerned to carry out some research and reconnaissance work to determine whether it is a worthwhile market to commit their resources to. Their embassies in that country would also be contacted. Likewise, if this initial research constitutes a major study for which there is inadequate consultancy services available in that country, then if it is a subsidiary company, it would normally refer to the head office of its holding company for help in finding an appropriate consultant.

From the field study, it seems that the activities of the marketing staff responsible for foreign projects can be divided into those that are conducted within the confines of the UK and those that go on overseas. In the UK, the marketing executive would help to coordinate the support facilities for use in each particular geographical region. These include design and purchasing facilities and where an initiative has been taken for a project, the organisation of financial packages. The marketing executive would also travel overseas to gain a better understanding of the markets in territories where his company is operating. Apart from representing his company to existing overseas clients, he would also be responsible for missionary marketing in other geographical areas which do not yet have any representation. Once countries have been identified as good market prospects through economic and political market surveys, the availability of projects in these countries will be monitored. Appropriate projects will then be selected for bidding or negotiations until an entry has been gained into the market. Depending on the requirements of each particular project, local or foreign joint venture partners may have to be found.

The conduct of marketing overseas requires all channels of communications to be kept opened at all times through meetings and social functions. Some companies have also placed a high level of reliance on their reputations to bring in opportunities. Others have sought to introduce innovative arrangements which seek to appeal to the needs of their foreign clients. Familiarisation, training and maintenance programmes for the constructed facilities, etc., provide yet another avenue through which further value added in marketing may be achieved.

The various modes which all the respondent companies have used for identifying overseas opportunities are analysed in Table 14.5. Respondents were requested to indicate their intensities of utilisation for each mode along three scales, namely,

"Mainly", "Occasionally" and "Not At All".

| Modes \ Intensity of usage | Mainly (%) | Occasionally (%) | Not at all (%) |
|---|---|---|---|
| Desk research | 29 | 67 | 5 |
| Construction magazines | 19 | 67 | 14 |
| Overseas missions | 24 | 67 | 10 |
| Government agencies | 33 | 52 | 14 |
| Funding agencies | 24 | 67 | 10 |
| Business associates | 33 | 62 | 5 |
| Joint venture partners | 24 | 76 | 0 |
| Previous clients | 52 | 48 | 0 |
| Overseas branch offices | 62 | 38 | 0 |

(Some modal percentages may not add up to 100% because of rounding-up discrepancies)

TABLE 14.5. MODES FOR IDENTIFYING OVERSEAS CONSTRUCTION OPPORTUNITIES

From the analysis shown in Table 14.5, it seems that a large majority of all the respondent companies have occasionally adopted all modes of operations at one time or another. Nonetheless, Table 14.5 also shows that 62% of all the respondent companies tend to rely mainly on their overseas branch offices for identifying foreign construction opportunities. Previous clients are another main source where 52% of all the respondent companies have placed reliance on for identifying overseas opportunities. This seems to reflect the important role, quality and reputation have, in procuring repeat business. It is interesting to note that every respondent companies have identified foreign construction opportunities through their joint venture partners, previous clients and overseas branch offices.

## 14.8. A PREFERENCE FOR LOCALISATION

A strong reliance on joint venture partners, previous clients and overseas branch offices for identifying foreign construction opportunities appears to indicate the significant importance of being close to where the actual works are in various overseas markets. Nevertheless, it would not be possible nor desirable for companies to set up branch offices in every countries of the world. A localised approach is preferred since this can provide a much more detailed and informed response to enquiries which may emanate from any one territorial area. Most of the respondent companies have been found to allocate their marketing efforts into well-defined regions of the world - for examples, Africa, Middle East, Far East, the Caribbean, etc. At a more detailed level of analysis, a company may establish a base in Oman and the executive stationed there will then be responsible for covering all the countries within the Gulf area.

While marketing may appear to be part of everybody's job, the general tendency among the respondent companies seems to indicate that marketing is best carried out by those who are directly involved with the projects or territories overseas. The rationale behind this tendency lies in the belief that the people who are most familiar with any particular territory are actually those who are involved with the works which their companies are doing in that territory. The need to establish a local identity is considered crucial to the extent that most subsidiaries involved with overseas operations have been given a high degree of autonomy by their UK-based parent companies. It therefore remains very much the responsibilities of these subsidiaries to carry out their own marketing activities within their predetermined geographical regions. Apart from building up the local relationships and making the local contacts, these subsidiaries are frequently also responsible for identifying and securing contracts in other neighbouring countries. This often takes place only after the foothold in the originally earmarked country has been secured. Apart from joint venture partnerships, expansion into these territories is often expedited by acquiring or developing indigeneous companies in the targeted foreign market. Once this has been accomplished, the UK-based parent company would only try to add value to what its overseas subsidiaries are already doing as part of the group's activities. This facilitates entry into certain ventures which the subsidiaries, on their own, would not be able to participate without the financial backing of the group. An approach of this nature would also enable companies within the same group to work together and, where appropriate, create opportunities and find work for one another. The decentralisation of functions which forms an integral part of each subsidiary company therefore appears to yield considerable advantages and opportunities which arise from being part of the group. A better understanding of the indigeneous business culture can also be cultivated by working locally rather than by operations directed from a foreign base. Foreign companies may still be able to secure the occasional "one-off" jobs without having to set up branch offices in that country. However, it would seem that a local branch office would be necessary if a regular stream of work in that country is desirable. This provision would systematically enable marketing to be carried out within the local context as much as possible. Each overseas branch office or subsidiary is regarded as a profit centre and the executive responsible for that profit centre is called upon to organise the local marketing effort. This executive will normally be the managing director or general manager of that profit centre and may not necessarily carry any marketing or marketing-related job titles. Most of the UK-based parent companies in the field study tend to rely on their managerial staff in their overseas profit centres to alert them of new opportunities. Each prequalification document or invitation to bid received by these profit centres would, where necessary, be referred to their holding companies for clearance and support.

## 14.9 ORGANISATION DESIGN FOR OVERSEAS CONSTRUCTION MARKETING

To examine how construction companies would like to organise their marketing functions for securing overseas contracts, the seven organisational options built up in Chapter Thirteen were used for the field study. Respondents were asked to indicate the appropriateness of each structural alternative for their companies along three scales, namely, "Appropriate", "May Be Appropriate" and "Inappropriate". It must however be pointed out that although a high degree of appropriateness may not necessarily reflect the actual level of implementation in reality for a particular organisational option and vice versa, the analysis can nevertheless serve to provide some indications of relevance for the international contracting industry. Organisation structures which are appropriate for different companies may not, likewise, be appropriate at the same level of intensity. The results of this analysis are shown in Table 14.6.

Table 14.6 shows that 52% of all the respondents have considered the geographical structure to be appropriate for their organisations. This tends to support the popular view of delegating the task of marketing to those who are stationed overseas since they are more likely to understand the local business context in other countries better than their counterparts who are not positioned there. As Jain (1989) has noted, marketing is very much a polycentric function which is greatly influenced by local factors. The primary authority for international marketing decisions is therefore best decentralised in favour of managers stationed in the host country. In the light of Jain's (1989) contentions pertaining to organisational preferences, this perhaps explains why international construction companies tend to leave the task of marketing to their local contact man. Organisation on a geographical basis facilitates this preference, hence accounting for the high percentage from the respondents who considered it to be appropriate for their overseas marketing operations.

| Appropriateness / Organisational options | Appropriate (%) | May be Appropriate (%) | Inappropriate (%) |
|---|---|---|---|
| Single Marketing Executive | 33 | 0 | 67 |
| Functional structure | 38 | 19 | 43 |
| Divisional structure | 19 | 24 | 57 |
| Products structure | 10 | 19 | 71 |
| Geographical structure | 52 | 19 | 29 |
| Matrix structure | 14 | 10 | 76 |
| Complex structure | 5 | 5 | 90 |

TABLE 14.6. THE DEGREE OF STRUCTURAL APPROPRIATENESS

The functional structure also appears to be another viable model for organising

international construction marketing activities. Here, 38% of all the respondents have considered it to be appropriate for their organisations. 71%, 76% and 90% respectively of all the respondents, however, do not think the products, matrix and complex structures are appropriate for the international contracting industry in so far as marketing within their organisations is concerned. The general view seems to be that the construction industry is unlike the manufacturing sector with diverse conglomerates dealing with a wide range of products and commodities.

It is interesting to note that a combination of two or more structural alternatives was often thought to be appropriate by some of the respondents for their organisations. Likewise, the actual organisation structures adopted by respondent companies for marketing were also seen to vary quite dramatically from one another. Several reasons were observed to have caused these variations. Firstly, the organisational mode adopted depends on whether the company concerned has placed more technical emphasis on sales or marketing. While this may be a function of the products and services which the company deals with, the imposing nature of the market served also has an influence on how the company organises itself. A larger company which has more resources at its disposal will tend to organise differently from another company with lesser resources. As one respondent points out, a company which decides to sell its engineering products direct to its end-users will inevitably need to have a much larger sales force. It is therefore not too difficult to understand why the marketing departments of different subsidiaries which belong to the same holding company have a tendency to vary structurally according to their business types and the nature of their approaches to each market. Because a high degree of autonomy is frequently given to managers to organise their subsidiaries as they see fit, the organisation of their sales and marketing structures can therefore be radically different from one another. Depending on who and how each company intends to sell or market to, its organisation structure for sales and marketing is bound to be affected. The requirements of different host governments in so far as foreign markets are concerned may also dictate the way a company expends its marketing efforts in each country. While an organisation structure will need to evolve and change in response to what the market wants, this development may, however, be retarded by the personal perceptions of those who are in control of that structure. Again, this may depend on the background of the controller - i.e. whether there is any tendency towards sales, marketing, engineering or a combination of these traits. Thus, while a market may change and an organisation will need to change along with the market, the timely implementations required may be hindered by behavioral peculiarities found within the firm. Nonetheless, all the respondents interviewed do not seem to regard the degree of structural flexibility to be a problem within their organisations. Where new opportunities demand the reallocation of resources within a particular region or from one region to another, their organisation structures would be flexed accordingly. As such, it appears that once the

market place requires changes to be made, no organisation structure would continue to remain static for very long. Hence, any one particular structure would therefore be satisfactory only at that point in time. The Middle East market has frequently been cited by interviewees for illustrating the nature of this transition. During the boom years of the 1970s and early 1980s when there were substantial amounts of works available on fairly attractive terms in the Middle East, the need for a marketing department was not pressing at that time. In the case of one respondent company, its London-based marketing department was then comparatively small. However, over the years, the same department had grown in size as the need to search for competitive sources of finance intensified in the present global construction market. Likewise, marketing executives stationed in the Middle East were recalled back to the UK by yet other respondent companies when the potentials there became drastically less favourable. While organisation structures may be an important element for marketing overseas, any overly undue emphasis in this area may lead to a failure to identify the real problems. Rather, the more crucial matters seem to lie in finding out what the clients want and where the competition is heading. As one respondent points out, the main problems that are likely to arise in the future are those associated with the market place. Since the market place is constantly changing, the marketing problems therefore always start and finish at the market place. Hence, if a company worries too much about its structures and organisations, it is not preoccupying itself with the real problem that matters.

14.10. CENTRALISATION VERSUS DECENTRALISATION

Some of the interviewees have also indicated a shift from centralisation towards decentralisation in their organisations over the years. This trend seems to be more prevalent among holding companies which own numerous subsidiaries in diverse fields of operations. This appears to reflect a growing awareness of the advantages in moving resources and activities as close to the markets as possible. The presence of a strongly directed centre has been recognised by respondents to be unwise for marketing overseas. Nevertheless, a centre which helps to coordinate all aspects of the group's operations may still be desirable if certain services can be organised more cost-effectively from the centre. For examples, some specialist design services may be shared more affectively by several smaller territories from the centre, and economies of scale may also be attainable from a central purchasing system.

Decentralisation of the marketing function appears to be particularly attractive for large holding companies which have interests in a diverse range of activities. The task of marketing is therefore best delegated to each individual subsidiary. Because the products, services and markets are completely different, a central marketing operation would tend to be very cumbersome. While the activities of some of the holding companies may be homogeneous and confined to within the fields of engineering, contracting and industrial goods manufacturing and selling, these are still very diverse in their respective scope of operations. As such, it would not be

sensible to market such a diversity of products and services centrally. By allowing each individual company a high degree of autonomy to carry out its own marketing and selling, the centre can then concentrate on providing the necessary guidance and directions in special situations. In this manner, the role of the centre will tend to be transitory rather than permanent. The centre's role would only be called upon to provide directions to subsidiaries which have requested assistance. Thereafter, each subsidiary would function on their own again. One respondent company has, in fact, found it desirable to delegate as much marketing responsibilities as possible to its subsidiaries. This company believes that better performances can be achieved if more responsibilities are given to those in control of its subsidiaries. By decentralising away from its head office, a deadweight is thus removed from the group and in the process, paved the way for more initiatives and greater efficiency. While it has not been possible to provide any concrete criteria for quantifying the operational cultures between different holding companies, nevertheless, it seems that some holding companies have tended to be more decentralised than others in delegating responsibilities to their subsidiaries.

The coordination of all overseas activities carried out by subsidiary companies has also been found to be controlled, where appropriate, at the level of the holding companies by an international executive or department. In the case of one respondent holding company, each of its overseas subsidiaries in North America, Europe and Australia have their own chief executives who report back to the international department based in the UK. In another respondent holding company, an international director was responsible for ensuring that all overseas contracts are properly managed and that the local marketing executives are bringing in the enquiries. Both the international department and international director, however, do not purport to lay down any details for the day-to-day operations of their subsidiary companies. Instead, they are more concerned with the overall coordination on a strategic level for all their overseas activities.

## 14.11. PROBLEMS WITH CHANGES IN STRUCTURES

Organisational problems associated with structural changes may be examined from two perspectives. Firstly, existing organisational overlaps and conflicts may be prolonged if the need for change was recognised but not dealt with in good time. The central marketing department and business development department of one respondent holding company were found to be stumbling over individual markets. Confusion was created among clients when different executives from the same company visited them at different times to talk about the same thing. Employees are likewise frustrated and discouraged when they became unclear of their own starting and finishing points in their assignments. When these problems were compounded, the marketing department was subsequently merged with the central business development department to form a more coherent single operating unit. Secondly, the organisational problems associated with structural changes may still arise after

the necessary changes have either been contemplated or made. As it is difficult to predict changes in the market place, it may accordingly become more difficult to redeploy specialised marketing employees. In the case of marketing staff who are already stationed overseas, the necessary changes may require the relocation of staff members as well as their families. Once this has been accomplished, another learning curve inevitably sets in as the reorganised structure goes about familiarising itself with new marketing technicalities commonly associated with a move from a known market to an unknown market. Hence, advertisements which have been used by a company successfully in Nigeria may not necessarily be appropriate in Saudi Arabia.

Reorganisation may also be perceived as an infringement of well-established institutionalised independence. This may, in turn, provoke different reactions from subsidiaries within the holding company. Internal difficulties may be created as a result. Where coordination is lacking, overlaps may occur among subsidiaries, and between subsidiaries and their holding companies.

While structural changes may be desirable for the betterment of organisational effectiveness within the changing market place, it seems that some of the imminent problems noted above may, in effect, deter the timely implementation of corporate solutions.

## 14.12. SUMMARY

In relation to the theoretical issues raised in Chapter 13, a methodology for the field study of marketing organisations in international construction companies was devised. A questionnaire survey as well as indepth semi-structured interviews with senior executives of construction companies were carried out. Details of the respondents to this survey, their companies' turnovers and geographical operations and the types of work they specialised in overseas are tabulated. The qualitative findings from the interviews are reported. These relate to how respondents perceive marketing; the relationships between parent and subsidiary companies and how these influence marketing activities; the dominant methods adopted for identifying overseas opportunities; and the nature of their operations for marketing their services overseas. A preference for localisation, the degree of centralisation / decentralisation and the uncertainties caused by structural changes are factors which influence the organisation of the marketing function within international construction companies. The seven organisational options constructed in Chapter 13 are presented to the respondents and their perceptions of the appropriateness of each option in relation to their respective companies are analysed. Although the geographical structure has been considered favourably, there was no available evidence to refute the applicability of the contingency approach as a useful model for designing marketing organisations in international construction firms.

## REFERENCE

Jain S.C., "Standardization of International Marketing Strategy : Some Research Hypotheses", Journal of Marketing, Vol. 53, January 1989, pp. 70-79.

CHAPTER FIFTEEN

CONCLUSIONS AND RECOMMENDATIONS

## 15.1. INTRODUCTION

An investigation of construction marketing from the global, national and corporate perspectives has been undertaken in this thesis. The integration of management and economics into this study has been found to be, of necessity, essential. Likewise, while the analyses have been conducted at the global, national and corporate horizons - each of which can be self-contained in its own right - it was felt that the results of each enquiry can be interpreted more gainfully if these can be read in systematic conjunction with the principles and issues raised in all three planes. The regional operations of respondent companies garnered in Table 14.3 of Chapter 14 (i.e. the corporate analysis), for example, can be assimilated with the leading regions in Table 10.27 of Chapter 10 (i.e. the global analysis). In the process, the cross-fertilisation of findings can serve to complement an insightful comparison between different levels of analysis. The cross-reference between financing, countertrade, technology transfer and joint venture in Chapter 7 with the Singapore case study in Chapter 12 is another example where consultative benefits can be derived.

The investigations have revealed that the acknowledgement of marketing from an ecological or generic view point is simply inadequate. The creation of an awareness of the marketing presence and realisation of its importance as well as the adoption of a formalised approach to marketing appear to be more meaningful. For this purpose, the incorporation of marketing components in national development plans and the formal education of construction personnel in the art and science of international marketing techniques and applications would serve to lay the groundwork for favourable balance of payments and surplus returns.

The diversity of general marketing theories and the economic influence are reviewed in Chapter 2. The stages of growth, evolution and maturity of marketing have been well documented since the turn of this century. Its humble beginnings from a predominately agriculture-based industry to the development of the present-day state-of-the-art has witnessed a series of controversial debates on the meaning and composition of marketing. There has yet to be a widespread coherent acceptance of a single definition of marketing although its important contributions have continued to be expounded and promoted over the years. Numerous paradigms were suggested to strengthen the theoretical constructs of marketing. Although the contentions from some of the more influential contributors were based on empiricism, their validity nonetheless appeared to be weakened considerably under the strain of rigorous cross-examinations and counter-arguments. The results, at least in the 1960s and the 1970s, were chaotic. A seemingly impenetrable maze of marketing jargon was built up and deployed.

The review in Chapter 2 has highlighted clearly the plethoric range of marketing

terms commonly used in the marketing community. These demonstrated the influences of both metalanguages and metaconcepts which seek to provide labelled categories of thoughts to create a clarifying effect in communication. Market segmentation, wherein markets are stratified geographically, demographically or by products, is an example of a metalanguage. Macromarketing, megamarketing, product life cycle concept, etc., are all examples of metaconcepts which by stating formally what they mean, make it easier for one to understand and improve marketing behaviour. In a similar vein, Kotler (1973) has described eight different marketing tasks named according to whether the demand is negative, nonexistent, latent, irregular, faltering, full, overfull or unwholesome. Their corresponding marketing tasks are labelled respectively as conversional marketing, stimulational marketing, developmental marketing, remarketing, synchromarketing, maintenance marketing, demarketing and counter marketing.

Metalanguages and meta concepts have been dealt with by Bartels (1970) and Zaltman, et. al. (1982) in what appeared to be efforts directed to extrapolate a theory of marketing which has remained, at best, elusive. The concepts and propositions as espoused by others seemed to have failed to provide a coherent theory of marketing. Along with the numerous futile attempts made to furnish a single acceptable definition of marketing, the theoretical constructs appeared to have suffered the same fate. Disagreements aside, there is no doubt that marketing can be defined readily. In fact, it may even qualify as a phenomenon which can be easily recognised. Every practitioners know what it is and where its theoretical backgrounds can be derived from. Yet, perhaps because of its wider than normal scope of coverage, it can only be dealt with in a diverse number of ways. This culminates, in effect, to what Sirgy (1984) has observed to be only a general theory of marketing which integrates all other micro theories such as the theories of consumer behaviour, organisational buying behaviour, channel member behaviour, channel system behaviour, channel institutions, micromarketing, macromarketing and strategic marketing. In the general systems theory approach to marketing as a social behaviour, Sirgy (1984) alone has examined several different approaches to the theories of marketing. Kernan (1973), on the other hand, reasons that marketing is now a maturing discipline but because of the variety of perspectives used to approach it, it has become difficult to be recognised as such. Therefore, while the manager is basically interested in the question of "will it work ?", the critic lashes out with "what will its effects be on people ?", and the academic enquires, quite innocently, "how and why does it work ?". The different background training, experiences, perceptions and areas of interest postulated in the beginning of Chapter 2 have tended to fuel irreconcilability further. Nonetheless, baring the removal of all conceivable obstacles, there are still others who have remained hopeful. As Kernan (1973) has observed, much of what appears as divisiveness is not a confrontation of divergent positions, but simply a failure of the respective parties to

recognise their fundamental complementarity. For instance, the two approaches from both the macro and micro perspectives are, in effect, dissonant treatments of the marketing process which perhaps indicate why there has been no universal agreement on what marketing aims entail. While the micro approach deals with company's objectives in profitability and growth terms, the macro approach, on the other hand, is more concerned with how marketing practices may contribute to society's good. The growing diversity of interests and emphasis is clearly discernible. Farmer (1967), by far, has been the most vocal in voicing his discontent for marketing on ethical grounds. The two main issues which were raised accused marketing practices as unethical and irrelevant. Firstly, Farmer (1967) sees it as unethical to sell to the gullible things which they do not need nor can ill-afford to pay. Secondly, in most less developed countries where demand for goods persistently exceeds supply and where surplus capacity does not in any way exists, Farmer (1967) argues that production, and not marketing, drives the wheels of their economies. Marketing could be after all, as Bartels (1962) has concluded, a growing integrated body of knowledge experiencing successive stages of maturity. It has matured to enable itself to be depicted not only as a business activity but also as an economic and social process, a discipline which Drucker (1958) notes, had advanced far further than any other business discipline. Marketing, it would therefore seem, consists of a pragmatic concept which draws on a potpourri of ideas and strengths from the other social science disciplines. Unlike the physical sciences, its scope is far less clearly defined. Attempts were also made to shift marketing towards quantification in order to reduce the effects of both subjectivity and relativism. The uncertain search for a single finite theoretical foundation which marketing can call its own continues today.

The controversial issues raised by a general theory of marketing have inevitably wound their way into the domain of international marketing. The interpretation and projection of the future role of international marketing have their fair share of attention from marketers, particularly those from the academia. Zeid (1981), in relating export "success" with marketing practices, has concluded that there is no significant difference between domestic and foreign marketing, and that marketing concepts and principles are, as a result, of universal applicability. However, in applying these concepts and principles in different markets, some variations and adaptations have to be accounted for in dissimilar operating environments. The inherent risks in assuming that the marketing practices which are successful in one country can be utilised wholesale in another are very real indeed.

In proceeding a step further, Terpstra's (1987) attempt to predict the future of marketing in the international arena has led to the identification of three major influential forces. Firstly, Terpstra (1987) suggests that there is a continuing integration of the world economy via the relentless throttle of technological advancements. This leads to the second phenomenon where sophisticated

communications and transport facilities now envisage a global village. These combined forces have set the scenario for the last stage where a more globalized competitive environment is thereby created. In the course of these developments, Terpstra (1987) has anticipated the expansion of marketing research agencies to both cover and cater for a larger geographical area and more diverse types of services. With an improvement in the quality and variety of marketing research activities, Terpstra (1987) expects international marketing firms to develop their own in-house market research expertise. Keegan's (1984) exhortation, it would seem, is even more radically challenging. In noting that the survival instinct of companies is of much greater importance presently than the attraction of foreign opportunities, Keegan (1984) emphatically pronounced that in an increasing number of industries, firms that remain national will disappear and only the international firms will survive to see the year 2000.

## 15.2. THE GLOBAL ANALYSIS

As the first part of a three-pronged approach adopted in this thesis, an attempt was made to derive an international MKIS for the global construction industry. The background theory pertaining to information systems for managerial decision-making was explored in Chapter 8. A study of the applicability of MKIS for identifying global construction opportunities constitutes the focal point in Chapter 9. An approach on how MKIS can be applied gainfully for international construction was demonstrated in Chapter 10. The data collated were analysed, in the main, according to types of economies, geographical regions and political groupings to yield previously unknown parameters of the global construction industry. The trends in Asean and the EC were also examined in details. Regression analyses and closeness of fit computations were carried out to highlight the nature of the world's construction industries. Summaries of the global construction markets' size and growth trends were established diagrammatically. Besides demonstrating an approach of how MKIS can be applied to international construction, the results also reflect clearly a phenomenal North-South divide between industrialised and less developed countries. These global discrepancies, however, seem to confirm that a large construction volume in a particular country may not necessarily mirror exceptionally good construction opportunities for the international contractor when compared with the characteristics of all other countries. Apart from the size and growth trends of construction in a country, its current and anticipated political, economic, social and technical factors also need to be considered. These latter aspects have, however, been omitted in the analysis carried out in this thesis. Nevertheless, the exercise conducted here can serve as a guide for international construction firms to search and monitor opportunities on a global scale.

### 15.2.1. LIMITATIONS

The findings in the global analysis should be read in conjunction with the qualifications mentioned in Chapter 9. It must be noted that the trends observed in

Chapter 10 are, at best, estimates dependent on each country's bona fide submissions to the various international agencies from whom the statistical data utilised here have been drawn. The integrity of each country's submission therefore governs the degree of confidence garnered. The tendency for less developed countries to manipulate their submissions for their own benefits, as Chapter 9 has pointed out, is constantly there. As a result, it would not be unreasonable to suggest that some of the national statistics from the less developed countries tend to be on the higher side or grossly "enhanced". This should be recognised accordingly in the interpretations of all results.

Unlike the case of most commodities where standard prices are the norms in international trading, there is little likelihood of a convergence for prices of similar construction elements in different countries. Apart from an elaborate fieldwork to find out how prices for the same component may vary in different countries, the information generated by the MKIS in Chapter 10 is unable to recognise nor distinguish between international price differentials. For this, one needs to refer to publications such as the "Spon's International Construction Costs Handbook" edited by Davis, Belfield and Everest (1988).

The differentials between productivity levels create even more problems than price where measurements and clarifications tend to be much more difficult. It would appear that those countries which offer high prices but, in themselves, have low levels of efficiency tend to be more attractive for international construction firms. An analogy lies in the UK automobile industry where it seems that high prices coupled with relatively low productivity have enabled Japanese car manufacturers to establish a bridgehead in Great Britain (Bower, 1990 and Evans, 1990). The Middle East oil-rich countries of the 1970s, with their acute shortages of construction resources and indigenous workforce, have offered similar incentives to foreign construction firms in search of high prices. Countries with high levels of productivity and low tender prices do not appear to be attractive to foreign construction firms. A study of the prevailing situations in different countries can only be qualitative - an approach which has been well demonstrated by Bunton (1979) in his study of the world markets for construction.

Bunton (1979) has also warned of the inflationary effects caused by the rapid pace of development in some countries which far outstripped their infrastructural capacities. Spiralling inflation has been experienced in some Arab states during the 1970s when over-ambitious development programmes were implemented without first considering the possible danger of overstretching their existing resources and infrastructure facilities. As Bunton (1979) then noted, the prices for most construction resources have, as a result, rocketed skyhigh when demand far exceeded supply. The analysis carried out in this thesis was however unable to detect the influences of inflation from the statistical data used. Undoubtedly, the utilisation of construction VA data at constant prices would appear, at first sight, to avoid this

deficiency altogether. The adoption of this approach would however create yet other problems because of the different base years instituted by the statistical agencies of different countries. Inconsistent base years were, in fact, noticeable in the statistical data series of some countries over a period of time. Similar figures in current prices, on the other hand, were much more readily available. The use of construction VA data in current prices here would, however, cloak the influences of inflation between different countries in so far as their construction prices are concerned.

A further limitation of this study has been the inability of the MKIS to indicate the construction types which go to make up the VA figures used. This is because construction comprises not only new building and civil engineering works but also the diverse activities of both the maintenance and retrofitting sectors of the industry. The use of GDFCF in highlighting a breakdown of this nature was contemplated here but its viability has to be abandoned because of severe data limitations for all but the most advanced countries. Turin (1969) notes that national account statistics can also be an inadequate tool for analysing the total gross output of construction. This is because the contribution of construction in GDP includes maintenance and repairs but accounts only for value added. On the other hand, the contribution of construction to GDFCF concerns gross output but includes only new works and a small portion of major repair and alteration works. This problem is compounded further when the number of countries which regularly collects accurate information on the total output of the construction industry constitutes only a small percentage of all the countries in the world. A more significant discrepancy, however, lies in the estimates for the Eastern European bloc of "communist" countries and their satellite counterparts as a result of the conceptual differences in definitions. Following the domino collapse of one communist regime after another in Eastern Europe in late 1989 as the winds of *glasnot* and *perestroika* swept through Poland, Hungary , East Germany, Czechoslovakia, Bulgaria and Romania, some of these entrenched differences may perhaps be rectified in the not too distant future (Lloyd, 1990). Meanwhile, in spite of these incongruities, nevertheless, it is felt that the analysis undertaken here has provided a reasonable assessment of the global construction situation in view of the orders of magnitude involved.

Similarly, no rigorous attempt was made to explain the wide range of factors which may account for the more subtle phenomena observed here. As pointed out earlier, the extremely large number of national and international events which can have an influence over global construction are so varied as to make a categorical documentation of their occurrences and causal effects almost an impossible task. However, the two oil crises of the 1970s as well as the global recession in the early 1980s are two significant global events which cannot be ignored. As a result, these have served as the main benchmarks against which the numerous trends observed here are frequently linked.

The adoption of a fifteen years' period between 1970 and 1984 as the time frame for

analysis is not without a reason. Apart from the excruciating lack of data over a longer time period which inhibits the investigations of long-terms trends, it can be argued that the short-term analyses undertaken here are similarly appropriate for both strategic and tactical marketing purposes. However, while it would appear that a knowledge of the short-term trends can help to provide a greater utility to the marketer within the context of rapidly changing market conditions, nonetheless, its contributions to the formulation of long range marketing policies can be seriously curtailed.

## 15.3. SINGAPORE'S NATIONAL MARKETING EFFORTS

The collective background theory pertaining to marketing, construction and economic development was espoused in Chapter 11. A search for the tripartite relationship between marketing, construction and economic development was undertaken, out of which the M-H Model was singled out for the focal study in Chapter 12. A section of the M-H Model was adopted for studying the development of the construction export marketing industry in Singapore. The evidence culled suggests that economic development in Singapore can be synthesised with both construction and marketing before evolving to the current emphasis on export marketing and globalisation. Governmental attempts in cultivating a national marketing effort for the economy as a whole have been detected in the Singapore construction industry in so far as the exports of services are concerned. Chapter 12 traces the evolution of the Singapore's economy with specific reference to the construction exports industry. The options and alternatives opened to the government and local construction firms, their advantages and disadvantages, were examined as part of what appeared to be governmental policies and strategies aimed at nurturing an eventual export culture in Singapore. This study provides additional empirical data for the final stage of the M-H Model which other developing countries can expect to encounter if they plan to embark on exports promotion in the near future. Developing countries can learn from the Singapore's experience and in the process, plan for the more effective use of their scarce resources and skills. The lessons learnt have emphasised the importance of preparatory groundwork before the export thrust can be envisaged. It has been suggested in Chapter 12 that the M-H Model has not been explicit enough in so far as Stage (E) is concerned, and that the chronological developments leading to Stage (E) ought to be examined in greater details from a national marketing standpoint. The Singapore case study has therefore served to rectify this contention.

The importance of governmental decisiveness and insightful planning can play a significant role in nurturing the economy as well as the industry. This appears to be the approach adopted in Singapore although the government efforts in this direction may be interpreted as state intervention by ill-informed observers. Far from regulating or interfering with the activities of the local business community, the government can instead be seen to have concentrated on promoting the well-being

of the national economy through the timely implementation of developmental assistance schemes and capitalisation of global opportunities. The government decision to bring forward the construction of the second phase of the MRT project in November 1984, for example, is indicative of the strategic move to take advantage of the world recession in the early 1980s. In so doing, a saving of some S$500m is expected to be realised by the time this S$5b project is completed[1]. The national "Speak Mandarin" campaign launched by the government in 1979 has intentionally set out to achieve social homogeneity among the diverse dialect groups in Singapore. It would however appear that this encouragement has also unwittingly paved the way for local businessmen, including building contractors, to secure contracts in the awakening market of Mainland China where the predominant language in official circles is still Mandarin.

The literature review in Chapter 11 and its subsequent extension into Chapter 12 have demonstrated clearly the acute demarcation between construction and marketing in economic development. While both the construction and marketing professions concerned have strongly emphasized the need to consider their respective inputs in national development plans for achieving economic growth, there was, however, no significant attempt made to synthesize their collective contributions within the framework of economic development. Since construction and marketing are two diverse disciplines with their own professional affiliations which are noticeably divorced from each other, the division observed in the literature review is therefore not the least surprising. To bridge this gap, an attempt needs to be made to synchronise the complementary inputs of construction and marketing into economic development. The coexisting exhortations made by both constructors and marketers towards economic development, although of significant importance in their own right, have not, regrettably, been read together with any mutual degree of reciprocity. The major construction and marketing papers pertaining to economic development have not been coordinated in this direction either. While each individual field of study has been acknowledged to have profound implications for the national economy, nevertheless, apart from Michell (1979), the combined influence of construction and marketing as such has not been placed in a proper perspective so far. The successful achievement of greater effectiveness in the development process would appear to be attainable if a conscious attempt were to be made to coordinate construction and marketing issues and recommendations in national development plans. The adoption of construction and marketing as the two main thrusts for securing economic development in this direction would seem to lead to four theoretical scenarios :

1. Scenario A : A Balanced View (Figure 15.1).
2. Scenario B : Weighted towards construction (Figure 15.2).
3. Scenario C : Weighted towards marketing (Figure 15.3), and
4. Scenario D : A Deficiency Model (Figure 15.4).

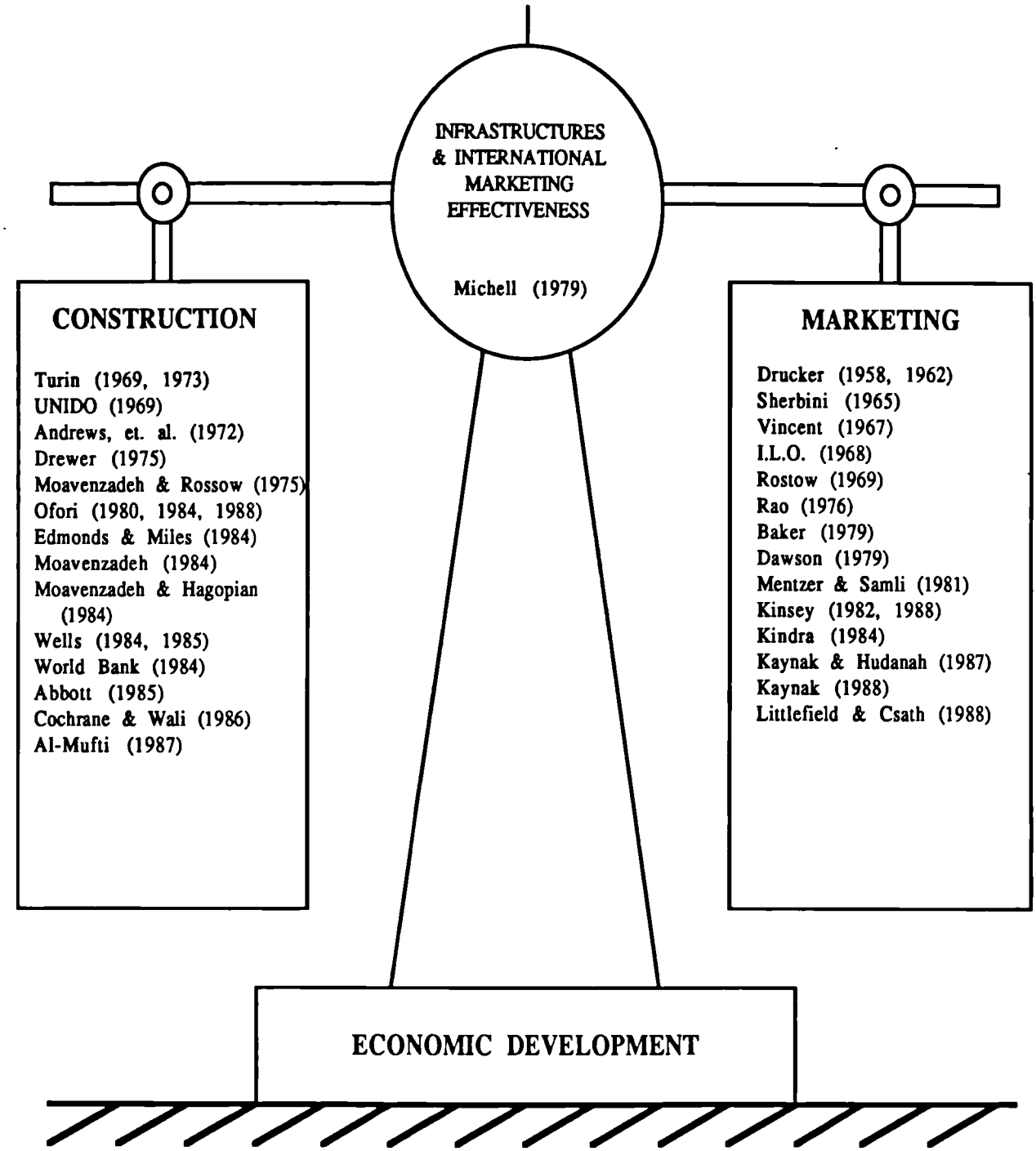



FIGURE 15.1 : SCENARIO A - A BALANCED VIEW

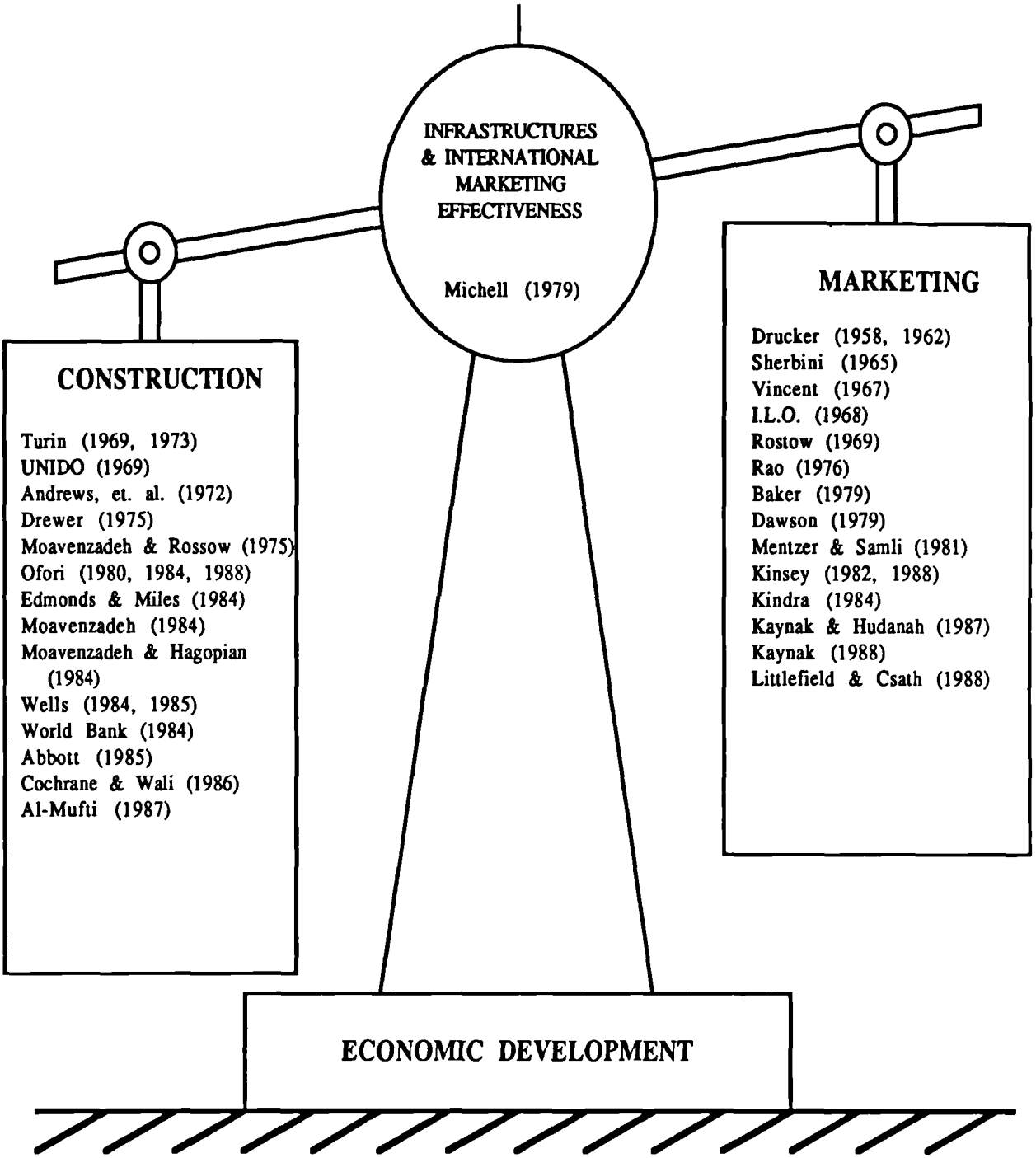



FIGURE 152 : SCENARIO B - WEIGHTED TOWARDS CONSTRUCTION

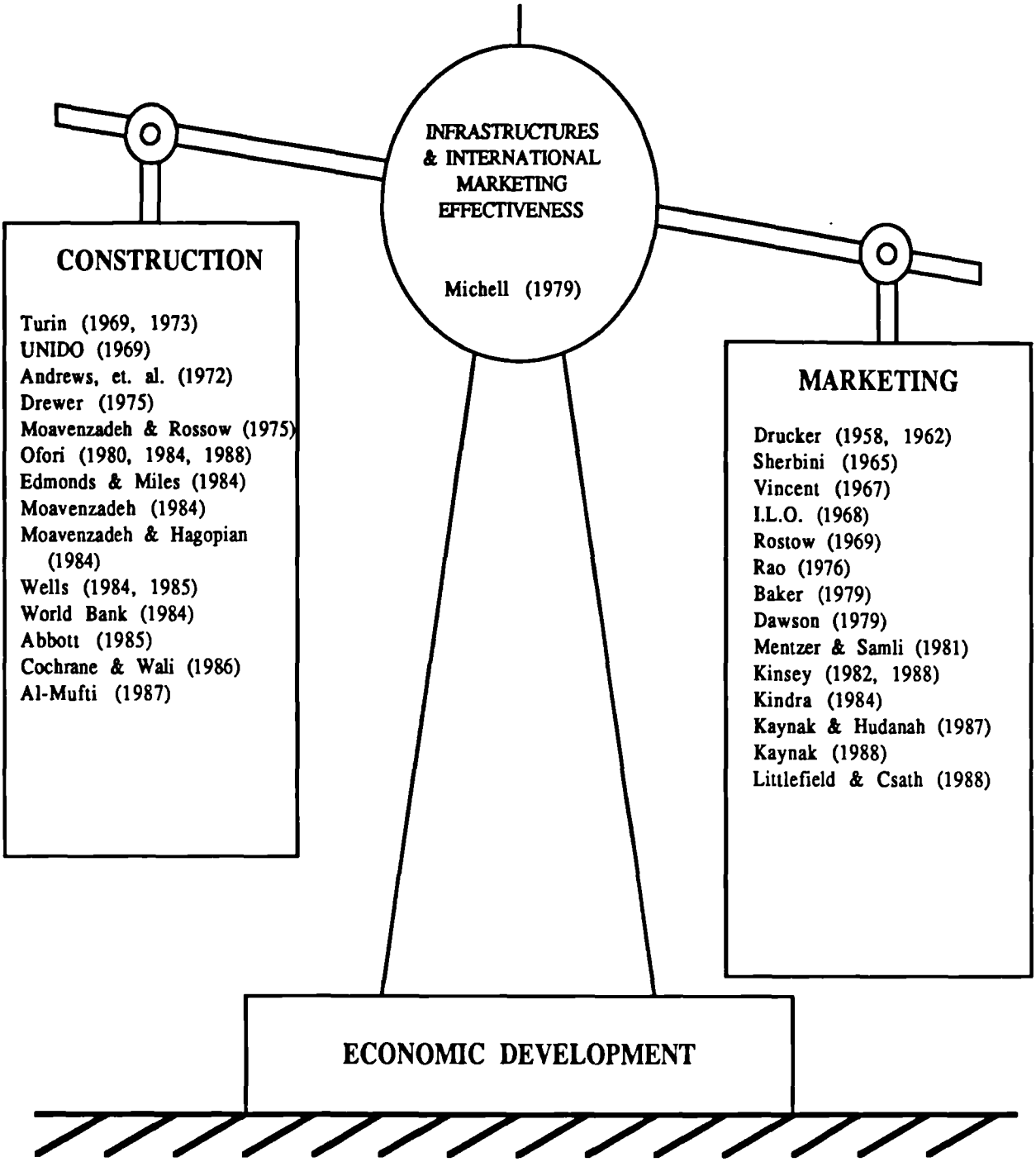



FIGURE 153 : SCENARIO C - WEIGHTED TOWARDS MARKETING

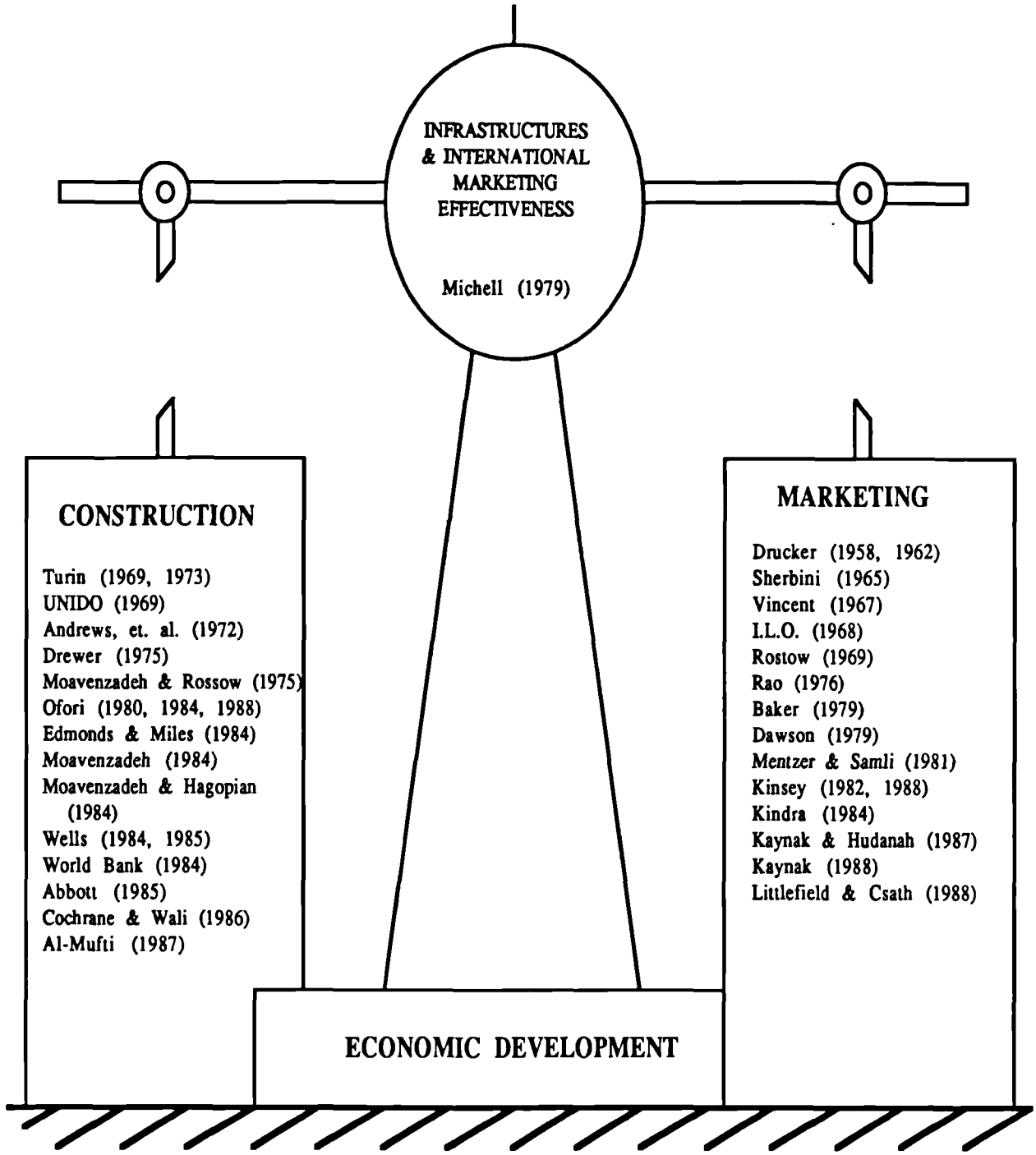



FIGURE 15.4 : SCENARIO D - A DEFICIENCY MODEL

Figures 15.1 to 15.4 are attempts made to weigh the respective influence of construction and marketing which bear on economic development. The proponents in each discipline who have advocated the relationships between construction / marketing and economic development have been annotated accordingly. The publications listed on both the construction and marketing sides of the scale have been reviewed by the writer in the course of researching for this thesis. These papers have essentially supported the role of construction or marketing in the process of economic development. Some have, in fact, been referred to in the preceding chapters.

The Balanced View in economic development as depicted in Figure 15.1 seems to mirror the characteristic features typical of most developed countries where mature marketing practices and construction infrastructures can be found. Figure 15.2, where construction attracts more attention than marketing, appears to reflect the emphasis given by the governments in most developing economies. In this scenario, the rich infrastructural facilities which have been built at high costs but were under-utilised as a result of the lack of a marketing impetus, will remain as "white elephants" in extreme cases. While the extremities have not occurred in Singapore, the initial emphasis placed by the government in developing strong construction facilities and infrastructural amenities in the post-independence era have been noted in Chapter 12. By the 1980s, Singapore's telecommunications, air and sea transport infrastructures are already among the best in the world. Singapore Changi Airport, ranked among the world's ten busiest airports in terms of international passenger and cargo traffic, was often regarded as one of the most modern and efficient airports in the world. The world's busiest port in terms of shipping tonnage and the second largest container port worldwide can, likewise, be found in Singapore today[2]. With some of the best business infrastructures in the world now in place in Singapore, the government has also turned its attention towards promoting and nurturing an export marketing culture in both the public and private sectors in recent years. In contrast with the construction industry, marketing has, until then, received scant attention from the government. This unbalanced situation has, however, been rectified to a certain extent now that the government has recognised the importance of cultivating an explicit marketing orientation within the economy. As noted in Chapter 12, marketing has only been promulgated at the national level in the late 1980s. Various incentives and assistance schemes are now available to encourage the business community to venture into overseas markets. Training facilities are also provided to develop the export marketing skills and knowledge required by the industry. The intensification of all these events in Singapore in the late 1980s appears to reflect the government's eventual recognition of the unhealthy imbalance found in Figure 15.2.

While the scenario depicted in Figure 15.2 may have been observed in Singapore, nonetheless, this situation may not necessarily apply to other developing countries

which tread along the lines suggested in Figure 15.3. The illustration in Figure 15.3 models an economy which lacks the construction facilities necessary for the effective conduct of marketing activities. Although the countries which fall within this category may not have neglected the critical inputs from their construction industries, a dead-weight to the expansion of international trade would be created if marketing is allowed to develop at a faster pace than what the construction industry can contribute or cope with in terms of supporting infrastructural facilities. Efficiency in export marketing would undoubtedly be curtailed without the necessary support from the construction industry. Nevertheless, this situation can be remedied by synchronising the needs of marketing with the capacities of the construction industry. Countries which have poor construction and marketing facilities can be categorised under the Deficiency Model in Figure 15.4. Adequate construction works and marketing expertise are generally found to be lacking in these countries which consequently inhibit both the local economy as well as foreign trade. Most of the poorest countries in the world have appeared to be affected to a large degree by the scenario depicted in Figure 15.4.

The essential factors for achieving a balanced approach as given in Figure 15.1 should therefore be considered in planning for economic development. Far too often, planning of this nature seems to have neglected the interface between construction and marketing. To highlight this interface, Figures 15.1 to 15.4 have therefore adopted Michell's (1979) work on "Infrastructures and International Marketing Effectiveness" as the balance wheel for both the construction and marketing disciplines in their common pursuit of economic development. Michell's (1979) paper seems to be the only work which deals with this interface explicitly. As noted by Michell (1979), three key questions need to be addressed :

1. Are various types of infrastructure necessary prerequisites for the healthy advancement of trade ?
2. Can effective marketing itself increase the pace of infrastructure development ?
3. To what extent does the underdevelopment of infrastructures impede firms in their marketing (Michell, 1979:79) ?

Two levels of analysis for studying marketing can also be identified. These are concerned with :

1. Domestic issues within the country, and
2. International issues outside the country.

Marketing can, in turn, be examined both as a process and an orientation at the two levels above. As a process, marketing would be concerned with the development of an appropriate institutional framework and other physical infrastructural amenities to facilitate the smooth transaction of marketing activities. As an orientation, marketers would be concerned with the cultivation of an environment to nurture trade and promote exports. The construction industry has, undoubtedly, played an important role in bringing an effective marketing process into fruition. The outputs

from the construction industry - commercial buildings, harbours, airports, telecommunications, etc. - are all part of the essential physical elements required for supporting the marketing process. Once all these facilities have been provided for, a mature construction industry would be ready to consider, in turn, the export of its services overseas. These developments have all been observed in Singapore.

While the pursuit of quality construction in Singapore may constitute an essential ingredient for competing in the international market, it does not appear to provide the competitive edge any more in the global construction industry today. As Lorenz (1989) has observed, contemporary expectations have already reached an all time high and quality can now only be a qualification to compete. Where parities have already been achieved by competing nations, Lorenz (1989) notes that the attainment of shorter production time and lower price have become just as important in the international arena. Apart from quality, these are some of the areas which must not be overlooked by the Singapore construction industry if local contractors are to compete effectively in the exports market. Conventional infrastructural facilities such as airports, harbours, trunk roads and other communication networks have traditionally absorbed a large proportion of construction expenditures in developing countries. Following the completion of most of these infrastructures in the developing world, these do not seem to offer an unusually attractive option for Singaporean contractors in search of overseas projects. Maintenance and retrofitting works for these completed infrastructural facilities, however, appear to offer comfortable niches for Singaporean firms who possessed the requisite track records drawn from similar works carried out for the existing stock of buildings and construction landmarks in Singapore. The success story of Singapore's public housing can also be exported to other developing countries to help them alleviate their housing shortage problems. In addition to marketing their urban planning and housing expertise overseas, HDB can also consider the setting up of prefabrication facilities in foreign countries with dire housing needs for their populations. With the eventual completion of most of the local public housing programmes in sight, the existing prefabrication plants in Singapore can be dismantled, shipped and assembled in other countries as an added incentive to HDB's service offerings.

The evidence documented from the Singapore construction industry has so far tended to lend support to the hypothesis posited in Chapter 12 which states that "when the construction sector within the economy of a developing country starts to contract after a period of sustained growth, the need for local contracting firms to export their construction services into overseas markets may become increasingly compelling. Furthermore, where the contracting industry is a relatively young and fledgling one, the nurturing role of the government in international marketing may need to be intensified". The chronological events expounded in Chapter 12 and the continuing national marketing efforts emphasised by the government in Singapore have set this case to rest. While some of these efforts were directed at the overall

national economy in general, the specific impetus and momentum created for the construction industry in the export direction have lent further credence to this proposition.

15.4. THE CORPORATE MARKETING ORGANISATION

Two hypotheses were formulated in Chapter 13 for studying marketing organisations in international construction contracting firms. It was suggested that :

1. There is no one single, "universal" best way to design a marketing organisation for international construction companies, and
2. Subject to an uncertain operating environment, construction companies operating in international markets are more likely to adopt a contingency approach to organising their marketing structures.

The background considerations for this empirical study commenced with Chapter 4 which argued for the relevance and applicability of marketing in the construction industry. Chapter 5 expounded on this argument further with an identification of the four schools of marketing thought in construction which may have accounted for the different attitudes marketing receives within the industry. Having shown the need for marketing in the construction industry, Chapter 6 also reviewed its significance within the domestic and international settings. Tendering, the issue of lowest price and marketing strategies for construction exports were examined. Financing, countertrade, technology transfer and joint venture - all of which have profound marketing implications for international construction firms - were considered in Chapter 7. These chapters have highlighted the collective influences which must be accounted for before the theoretical foundation underpinning the organisation of international marketing activities can be appreciated to its fullest. The theoretical issues raised in Chapter 13 should therefore be read in conjunction with the diversities encountered by marketers in the international construction industry. Chapter 13 has traced the development of management theories which encompass the classical, human relations and contingency approaches to organisation design. The structural options available for organising marketing operations were constructed, the rationale behind their adoption examined, and the contingency approach focussed as a viable model for designing marketing structures in international construction firms.

The inherent limitation of the questionnaire survey adopted for this study in Chapter 14 must be recognised before interpretations of the field results can commence. This concerns the scaling method used to gauge the respondents' perceptions on intensities (i.e. Mainly, Occasionally, Not at all) and appropriateness (i.e. Appropriate, May be appropriate, Inappropriate). It should be appreciated that the responses to the questionnaire may be at different planes even though two or more respondents may have indicated similar scales on the survey forms. Two levels of analysis may, however, be identified from the data collected from this field study. Firstly, the overall corporate structures were found to have varied generally from

one firm to another and, secondly, marketing operations were organised, in the main, along different themes although a tendency to structure these on a geographical basis can be observed.

The field study shows that most international construction companies are generally large by present day standards and could simultaneously involve both holding and subsidiary companies. The field study also reveals that the organisation structures for international marketing depend on whether the respondent company is a holding company or a subsidiary company. In a holding company, it also depends on whether the company concerned has a centralised or decentralised policy.

In the case of a holding company which has a philosophy of centralising all its activities, there is normally a marketing unit at its head office which coordinates all the group's marketing activities, including those of its subsidiaries. Where the holding company has a decentralised policy, then much autonomy is often given to its subsidiaries to make their own marketing decisions. In this case, there is little head office's interference on the marketing activities of its subsidiaries. Likewise, there may or may not be a marketing unit at the head office of the holding company.

In the case of subsidiary companies, a managing director or a marketing director normally coordinates and controls all the overseas marketing activities. Again, depending on the degree of autonomy given to the subsidiaries, the marketing director may or may not need to report to the head office of the holding company for further directions. Depending on the size of the subsidiary, the marketing director may have several marketing executives reporting to him. These executives are normally based in the UK but will travel out occasionally to their respective overseas domains when necessary. If the subsidiary happens to be based in a foreign country because of host government's requirements or market conditions, then the marketing director and executives may have to be stationed in that country on a full-time basis. According to some of the interviewees, full-time marketing executives were also stationed in several Gulf countries during the boom years of the 1970s and early 1980s in the Middle East. In other cases, the general manager or managing director of that subsidiary will often be responsible for the marketing efforts in that country. Further attempts will also be made to venture into other neighbouring countries where his company does not yet has any representation.

A combination of marketing structures was also adopted simultaneously within groups of companies. Hence, while the head offices of some respondent holding companies have functional marketing structures, their international construction subsidiaries have actually utilised the geographical structure for their foreign marketing activities. As noted above, two levels of analysis may be observed here. Firstly, the organisation structures for marketing within construction companies were generally seen to be dependent on variables such as different company size, different products, services and markets served, and different company philosophies and policies, etc. The empirical evidence gathered had revealed a low level of

universality among these companies in so far as marketing organisation structures are concerned. Broadly speaking, no single organisational trend can be pinpointed nor generalised from the field study as practices were found to vary from firm to firm. However, at a more detailed level of analysis, there appears to be a tendency towards the adoption of geographical marketing structures for those companies who are directly involved with the front-line activities of operating in overseas markets. The very nature of international contracting and the need to be in close contact with foreign clients and markets seem to have contributed to this phenomenon.

The rationale for a geographically-based marketing organisation structure appears to be the creation of opportunities for cultivating personal relationships overseas. This approach does not seem to be appropriate if a company believes in competing for business on the basis of the lowest tender. However, if a service can be provided to the client more successfully than others, then the chance for repeat business can be enhanced tremendously. Some respondent companies appear to place an important reliance on their overseas reputations for securing repeat businesses and new contracts worldwide.

While external marketing consultants may have been used occasionally to supplement in-house organisational resources, some respondents do not find the information provided by these consultants to be useful nor timely. Larger companies, particularly at the level of holding companies, tend to have their own internal capabilities to deal with promotional materials and public relations. These facilities are likewise extended for use to all their subsidiaries. Other smaller companies may, however, still need to engage the assistance of external consultants for the occasional marketing assignments.

The contention that there is no one single, "universal" best way to design a marketing organisation for international construction firms can therefore be supported generally. The field study shows that the structural option which is most appropriate for a particular company may not necessarily be viewed in the same light for another company. In some cases, a combination of two or more structural alternatives were actually considered to be appropriate. Even where geographical structures were adopted, these could be organised on the basis of different regional classifications in different companies. Since organisation design is dependent to a large extent on environmental variables, construction companies operating in the international market are therefore faced with the enormous task of structuring their marketing organisations because of the diverse range of uncertainties encountered in the global industry. While the geographical structure tends to be favoured by international construction companies for their marketing operations, its adoption, however, does not completely preclude the validity of the contingency approach to organising their marketing structures. Furthermore, apart from verifying the theoretical constructs for organising marketing activities in international construction firms, the findings here may also be utilised to gain a better

understanding for firms contemplating overseas ventures at some future points in time.

## 15.5. CONCLUSION

A review of the existing academic research theses in the fields of construction and marketing have revealed a need to link all these diverse studies within a broader framework for shaping future research strategies. The works of Hamman (1971), Neo (1975), Seymour (1986), Al-Mufti (1987) and Lovell (1989), etc., have, in the main, tended to focus on specific but narrow issues within the construction and marketing disciplines. Although there is nothing wrong in adopting a narrower view in research, this tendency would, however, mean that there is now a corresponding need to gather, where required, individual findings under a single theme if the results are to be read in conjunction with one another. The macro, three-pronged approach adopted in this thesis is an attempt to circumvent this narrow tendency by showing how separate research packages can be designed and still be connected together appropriately within a broader framework. This thesis shows that it is possible not only to reinforce but also beneficial to relate construction and marketing findings at the global, national and corporate levels.

The three-pronged approach adopted in this thesis has therefore served to further the works of others in the fields of construction, marketing and economic development. To cover three diverse areas at the global, national and corporate perspectives, it has been necessary to adopt a wide and encompassing approach which is, at the same time, exploratory in nature. Apart from the conclusions which have been drawn above for each perspective, this thesis has, in the process, instilled an irrevocable appreciation of the marketing concept and demonstrated its applicability within the framework of the international construction contracting industry.

## 15.6. RECOMMENDATIONS FOR FURTHER RESEARCH

During the course of this research, the large number of diverse ideas gathered have raised more questions than this thesis hoped to resolve. A number of these issues should therefore be examined in greater details to both complement and extend this thesis. While recommendations for further research which complement this thesis are listed first, others which serve to extend this thesis are noted later :

1 It would be interesting to study the percentage contributions construction have in the national accounts of all the countries in the world. This study would reveal any common or constant point of reference which may prevail among and between different groups of economies. Once this analysis has been completed, the global situation can similarly be mapped out in diagrammatic forms to show each region's and country's average percentage shares of GDP / GNP accrued to construction over a period of time. An exercise of this nature would be able to yield heuristic evidence for economic planners in so far as the construction industry is concerned.

2 The economic variables of each country can also be regressed with construction variables over the same period of time and their scatters plotted to analyse their trends. Moving averages may also be computed to analyse how well the predictions relate to actual values. Computations for all the countries would indicate the reliability of adopting this approach for establishing economic forecasts.

3 The rapid growth (eg. in Indonesia and Kenya) or decline (eg. the mass exodus of refugees from East Germany in 1989) in populations seem to have an effect on the relationship between GDP per capita and construction per capita. In countries where their populations are either stagnant or declining, GDP per capita tends to grow. On the other hand, where the population in a country is growing at a faster rate than its GDP, the distribution of wealth within that country will tend to be reduced correspondingly. Economic variances of this nature appear to influence the potentials for construction in a country. Further research work is recommended here to examine the nature of this influence when economic variables fluctuate in different ways as a result of demographic changes.

4 It was suggested in this thesis that the two oil crises of the 1970s have led to the enhancement of construction potentials when non oil-producing countries embarked on intensive programmes of constructing more energy-efficient buildings to lessen the impact of spiralling oil prices. The contention of this proposition can be explored using data furnished by the Engineering News Records which classify the values of contracts won by international contractors under different headings.

5 A further extension for the global market information system constructed in this thesis lies with the shift-share approach to analysing geographical trends. Construction variables such as VA or cement consumption, etc., may be used here. The shift-share method maintains that any incremental change in a country's VA by construction in absolute terms, for example, over a period of time does not necessarily yield a favourable ranking if this increase is of a lesser magnitude than that of the global increase. Computations along these lines for all the countries or regions in the world would be able to reveal the shifts in global construction trends over time.

6 The Singapore case study analysed in Chapter 12 will help to contribute to the Singapore construction industry in so far as the education of future construction professionals and leaders is concerned. It will help them to understand and appreciate how the construction export market has evolved since 1965 and the steps taken by the government to nurture the fledgling industry even in the earlier years of independence. An understanding of all these chronological developments will also serve as a platform for future dialogues between the government and the local industry, and to promote co-ordination among all public and private sector exporters of construction services.

The case study, however, does not stop here. It will continue with the passage of time and it is the writer's intention to continue on to research, document and update the study along with future developments.

7 The M-H Model presented in Chapters 11 and 12 merits further research work to establish its validity for the evolution of its first four stages. Archives pertaining to the construction history of Singapore can be unearthed and investigations made to either support or refute the M-H Model. The annual market shares of both foreign and local contractors in different categories of construction works can, where data are available, be collated to provide some indications of the various stages reached. This exercise can also be extended to other countries and by comparing their trends, establish the generality or otherwise of the M-H Model.

8 The Singapore construction industry has illustrated the adoption of a liberal, open-door policy for foreign contractors. It would, however, be worthwhile to examine situations where protectionist measures have been imposed purportedly by governments to nurture their indigenous construction companies. Case studies of other countries who have resorted to protectionism would be able to mirror the developmental differences between closed and open-door policies, and how these affect the stages suggested by the M-H Model.

9 The Singapore case study, although indicative of the export marketing developments of its construction industry, may not necessarily reflect a generalisable trend which can be extracted from other countries. Further detailed research is therefore recommended for the construction industries of other countries to understand how their respective export drives have evolved with the passage of time. The construction export drives in the economies of Egypt, India, Philippines, Turkey and other NICs merit additional studies in this direction.

10 A study of the M-H Model seems to suggest that its appropriateness is confined mainly to the developing countries. Apart from post-war reconstruction, foreign contractors appeared to be excluded from the building programmes found in the developed world. However, this phenomenon seems to has changed rapidly in the 1980s when inroads were made by foreign construction firms into the industrialised countries. The Japanese and British, for examples, are now operating in North America and Western Europe. American and other West European contractors, likewise, have also gathered momentum in their efforts to penetrate the Japanese construction market. A closer scrutiny is recommended for this phenomenal trend in global construction.

11 Analysis at the corporate level within the context of this thesis (Chapters 13 and 14) has assumed a "rational" model as the basis for structuring marketing organisations. Organisational writers have, however, long recognised an "irrational" or "coalitional" model in the "real" world. Further research work is therefore recommended here to investigate the influence of power struggles, conflicts and irrationality on the organisation of marketing structures for

international construction firms.

12 The organisation of export marketing for other construction and construction-related disciplines have not been dealt with in this thesis. It would be of interest to examine how building products' manufacturers, architects, engineers, surveyors, etc., organise their marketing thrusts, if any, overseas.

13 The Product Life Cycle concept (Chapter 3) has been derived from Diffusion Theory which follows a normal distribution curve. This knowledge is, however, unlikely to be helpful unless the timings on the horizontal X-axis can be established. Further research work can be directed to link the PLCs of specific construction elements with time. Attempts may also be made to relate their timings with Rostow's (1962) stages of economic growth.

14 Gilligan's and Hird's (1986) suggestion of using the PLC in international trade as a mode for identifying future opportunities is another avenue worth looking into in greater details for the construction industry. Take the case of Singapore. After more than two decades of intense construction activities, maintenance appears to be an increasingly important and lucrative market in the 1980s and beyond. Likewise, this phenomenon seems to prevail in countries which have amassed large scale building programmes in the recent past (For examples, countries in the Gulf area). Provided the expertise is there, maintenance works appear to provide immense future potentials for international contractors. In other more developed countries, intelligent buildings and building automated systems may yet create more opportunities for contractors who are at the forefront of technology and are innovative enough to market these services. A cross-fertilisation of these probable developments merit the formulation of a time-based PLC to encompass construction, building management and maintenance.

15 Contractual arrangements and modes of procurement have continued to evolve within the construction industry. The various contract strategies adopted, however, appeared to have an effect on marketing communications within each institutional framework. Further research work should be applied here to examine this influence on different participants involved with construction.

16 The marketing implications of financing, countertrade, technology transfer and joint venture have been highlighted in Chapter 7. Additional investigations can be extended to study their development, prevalence, and success rates within the global construction industry.

17 The issues of risks for international construction firms have not been considered in this thesis. Their importance, however, merit further examination and understanding.

18 The lessons from military strategists for international marketing have been mentioned, albeit briefly, in Chapter 6. There seems to be ample scope for applying military strategies to construction marketing. The works of Sun Tzu,

Miyamoto Musashi, Carl von Clausewitz and Basil H. Liddell Hart, etc., can be explored in greater details and their relevance studied for possible integration into international competitive bidding and contracting.

19 Following President George Bush's address to the United States in July 1989 to commemorate Neil Armstrong's momentous landing on the Moon, proposals have since been made to build permanent bases on the Moon and Mars by early next century. The extremely sophisticated development in this area appears to herald in a new era of interplanetary and even interstellar construction - immature as it may sound at this moment. Grant (1989) and Toth (1990), etc., however, seem to be optimistic that lunar construction can become a reality in the not too distant future. If so, what are the changing role of construction contractors in the multi-disciplinary projects of this nature ? Is there a role for marketing if construction management expertise can be developed for this area of specialisation ? What research and development activities are required ? What are the complexities involved ? How can they be overcome ?

## FOOTNOTES

1 Dhaliwal R., "Good timing may save $500 million for MRTC", Straits Times Weekly Overseas Edition, 8 April 1989, p. 8.

2 Reported in "Singapore : a global city and a total business centre", Supplement to the Straits Times Weekly Overseas Edition, 25 November 1989, pp. 12-13.

## REFERENCES


1 Abbotts P. G., "Technology Transfer in the Construction Industry : Infrastructure and Industrial Development", Special Report No. 223, The Economist Publications Ltd., 1985.

2 Al-Mufti M. A., "Planning for future construction in developing countries : The estimation of construction demand based on national and sectoral growth patterns", unpublished Ph.D. thesis, Department of Civil Engineering, The Queen's University of Belfast, 1987.

3 Andrews J., et. al., "Construction and Development : A framework for research and action", University College Environmental Research Group, London, May 1972.

4 Baker M. J., "Marketing. An Introductory Text", 3rd Edition, Macmillan, 1979.

5 Bartels R., "The Development of Marketing Thought", Richard D. Irwin Inc., 1962.

6 Bartels R., "Marketing Theory and Metatheory", Richard D. Irwin Inc., 1970.

7 Bower T., "Britain's Last Battle : Industry under the hammer", The Times, 6 February 1990, p. 25.

8 Bunton J., "World Markets for construction", Northwood Publications, 1979.

9 Cochrane S. R. and Wali K., "Construction expenditure and economic development", Civil Engineering (London), September 1986, pp. 9-14.

10 Davis, Belfield and Everest Chartered Quantity Surveyors (Eds.), "Spon's International Construction Costs Handbook", 1st Edition, E & F N Spon, 1988.

11 Dawson J. A., "The Marketing Environment", Croom Helm Ltd. (London), 1979.

12 Drewer S. P., "The construction industry in developing countries. A framework for planning", University College Environmental Research Group, London, April 1975.

13 Drucker P. F., "Marketing and Economic Development", Journal of Marketing, January 1958, pp. 252-259.

14 Drucker P. F., "The Economy's Dark Continent", Fortune, Vol. 65 No. 4, 1962.

15 Edmonds G. A. and Miles D. W. J., "Foundations for change - Aspects of the construction industry in developing countries", Intermediate Technology Publications, 1984.

16 Evans J., "A yen to invest", Building, 9 February 1990, pp. 62-63.

17 Farmer R. N., "Would you want your daughter to marry a marketing man ?", Journal of Marketing, Vol. 31, January 1967, pp. 1-3.

18 Gilligan C. and Hird M., "International Marketing Strategy and Management", Croom Helm, 1986.

19 Grant B., "A giant leap for construction", New Builder, 19 October 1989, p. 8.

20 Hamman N. N., "Contracting firms and the pre-tendering phase of international construction projects", unpublished M.Sc. thesis, Department of Building, University of Manchester Institute of Science and Technology, 1971.

21 ILO, "Creating a Market", International Labour Office, Geneva, 1968.

22 Kaynak E., "Marketing and Economic Development", Praeger, New York, 1988.

23 Kaynak E. and Hudanah B. I., "Operationalising the Relationship between Marketing and Economic Development : Some Insights from Less-Developed Countries", European Journal of Marketing, Vol. 21 No. 1, 1987, pp. 48-65.

24 Keegan W. J., "Multinational Marketing Management", 3rd Edition, Prentice-Hall Inc., 1984.

25 Kernan J. B., "Marketing's Coming of Age", Journal of Marketing, Vol. 37, October 1973, pp. 34-41.

26 Kindra G. S. (Ed.), "Marketing in Developing Countries", Croom Helm, 1984.

27 Kinsey J., "The Role of Marketing in Economic Development", European Journal of Marketing, Vol. 16 No. 6, 1982, pp. 64-77.

28 Kinsey J., "Marketing in Developing Countries", Macmillan, 1988.

29 Kotler P., "The Major Tasks of Marketing Management", Journal of Marketing, Vol. 37, October 1973, pp. 42-49.

30 Littlefield J. E. and Csath M. (Eds.), "Marketing and Economic Development : Issues and Options", Proceedings of the Second International Conference on Marketing and Development, Karl Marx University of Economic Science, Budapest, Hungary, 10-13 July 1988.

31 Lloyd J., "Comecon puts reform high on its agenda", Financial Times, 6 / 7 January 1990, p. 2.

32 Lorenz C., "Quality as a competitive commodity", Financial Times, 13 November 1989, p. 46.

33 Lovell J. W., "The Marketing of Quantity Surveying Services. The Views of Quantity Surveyors and Clients", unpublished M.Phil. thesis, Templeton College, University of Oxford, April 1989.

34 Mentzer J. T. and Samli A. C., "A Model for Marketing in Economic Development", Columbia Journal of World Business, Fall 1981, pp. 91-101.

35 Michell P., "Infrastructures and International Marketing Effectiveness", Columbia Journal of World Business, Spring 1979, pp. 91-101.

36 Moavenzadeh F., "Construction and Socioeconomic Growth", Unibeam, Vol. XIII, 1984, pp. 19-28.

37 Moavenzadeh F. and Hagopian F., "The construction industry and economic growth", Asian National Development, June / July 1984, pp. 56-60.

38 Moavenzadeh F. and Rossow J. A. K., "The Construction Industry in Developing Countries", Technology Adaption Programme, Massachusetts Institute of Technology, 1975.

39 Neo R. B., "International Construction Contracting : A critical investigation into

certain aspects of financing, capital planning and cash flow effects", unpublished Ph.D. thesis, Heriot-Watt University, 1975

40 Ofori G., "The Construction Industries of developing countries : The Applicability of existing theories and strategies for their improvement and lessons for the future. The case of Ghana", unpublished Ph.D. thesis, University College London, September 1980.

41 Ofori G., "The Construction Industry in the economy of Singapore", Professional Builder, Vol. 1 No. 3, August 1984, pp. 3-7.

42 Ofori G., "Construction industry and economic growth in Singapore", Construction Management and Economics, 1988, pp. 57-70.

43 Rao T. R., "Marketing and Economic Development", Marketing and Management Digest, January 1976, pp. 15-18.

44 Rostow W. W., "The Stages of Economic Growth. A non-communist manifesto", Cambridge University Press, 1962.

45 Rostow W. W., "The Concept of a National Market and its economic growth implications", in "Marketing and Society : The Challenge", R. J. Lavidge and R. J. Holloway (Eds), American Marketing Association, 1969, pp. 192-200.

46 Seymour H., "International Investment in the construction industry", unpublished Ph.D. thesis, Department of Economics, University of Reading, October 1986.

47 Sherbini A. A., "Marketing in the industrialisation of Underdeveloped Countries", Journal of Marketing, Vol. 29, January 1965, pp. 28-32.

48 Sirgy M. J., "Marketing as Social Behaviour : A General Systems Theory", Praeger Publishers, 1984.

49 Terpstra V., "The Evolution of International Marketing", International Marketing Review, Summer 1987, pp. 47-59.

50 Toth R. S., "The Next Giant Leap ...", The Plain Truth, January 1990, pp. 15-16.

51 Turin D. A., "The Construction Industry : Its Economic Significance and Its Role in Development", Building Economics Research Unit, University College Environmental Research Group, London, June 1969.

52 Turin D. A., "Construction and Development", Building Economics Research Unit, University College Environmental Research Group, London, September 1973.

53 UNIDO, "Construction Industry. Industrialization of Developing Countries : Problems and Prospects", UNIDO Monograph No. 2, United Nations Industrial Development Organisation, Vienna, 1969.

54 Vincent C. D., "Marketing and Economic Development", in Warley T. K. (Ed.), "Agricultural Products and their markets", Basil Blackwell (Oxford), 1967, pp. 75-81.

55 Wells J., "The Construction Industry in the Context of Development : A New Perspective", Habitat International, Vol. 8 No. 3/4, 1984, pp. 9-28.

56 Wells J., "The Role of Construction in Economic Growth and Development", Habitat International, Vol. 9 No. 1, 1985, pp. 55-70.

57 World Bank, "The Construction Industry : Issues and Strategies in Developing Countries", World Bank, 1984.

58 Zaltman G., LeMasters K. and Heffring M., "Theory Construction in Marketing : Some thoughts on thinking", John Wiley & Sons Inc., 1982.

59 Zeid E. H. A., "Marketing and Export Success", unpublished Ph.D. thesis, Department of Marketing, University of Strathclyde, September 1981.

BIBLIOGRAPHY

Abbott P. G., "The Development of Third World Domestic Contractors", Proceedings of The Institution of Civil Engineers' Meeting on "Contracting in Developing Countries", 25 February 1987, London.

Abdul Samad A. A., "World Construction : a comparison of industry expenditure across economic and geographical groupings", unpublished M.Sc. Report, University of Strathcylde, 1984.

American Chamber of Commerce (UK), "Anglo-American Trade Directory 1987", American Chamber of Commerce (UK), 1987.

Anastassopoulos J., Blanc G. and Dussauge P., "State-owned Multinationals", John Wiley & Sons, 1987.

Andrews J., "Communicate or speculate : the marketing choice in the building industry", in "Marketing in the construction industry : Evening Lectures 1970 - 1971", Straton J. (Ed.), Institute of Marketing Construction Industry Marketing Group, 1971, pp. 8-13.

Andrews J., "A collection of recent papers about construction industry development and education and training for the management of construction", University College London, March 1985.

Ansoff H. I. (Ed.), "Business Strategy", Penguin, 1969.

Artisien P. F. R., "Joint Ventures in Yugoslav Industry", Gower, 1985.

Ashby L. D., "Changes in regional industrial structure : A comment", Urban Studies, Vol. 7, 1970, pp. 298-304

Ashford J., "Statistics for management", 2nd Edition, Institute of Personnel Management (London), 1980.

Austen A. D. and Neale R. H., "Contracting in Developing Countries - An Overview", Proceedings of The Institution of Civil Engineers' Meeting on "Contracting in Developing Countries", 25 February 1987, London.

Baker M. J. (Ed.), "Marketing : Theory and Practice", Macmillan, 1976.

Baker M. J., "Marketing - A New Philosophy of Management ?", The Quarterly Review of Marketing, Winter 1989, pp. 1-4.

Birch N. and Williams J. G., "The organisation structure of nine firms in the construction industry", Departmental Publication No. 21, Department of Transportation and Environmental Planning, University of Birmingham, March 1967.

Bowley M., "The British Building Industry", Cambridge University Press, 1966.

Boyd A., "An Atlas of World Affairs", Methuen & Co. Ltd., 1964.

Brech E. F. L., "Planning for profitability", in "Marketing in the construction industry : Evening Lectures 1970 -1971", Straton J. (Ed.), Institute of Marketing Construction Industry Marketing Group, 1971, pp. 14-17.

British Institute of Management, "A Survey of Marketing Research in Great Britain", BIM Information Summary No. 97, January 1962.

British Institute of Management, "Marketing Research", BIM Information Note 25 (2nd series), June 1964.

British Institute of Management, "A Survey of Market Forecasting Practice in Great Britain", BIM Information Summary No. 115, September 1964.

British Institute of Management, "Company Policy", BIM Information Note 53, November 1966.

British Institute of Management, "Exporting : First Steps", BIM Management Checklist No. 16, 1969.

Brooke M. Z., "International management contracts : servicing foreign markets and selling expertise abroad", Journal of General Management, Vol. 11 No. 1, 1985, pp. 4-15.

Brown R., Hayton J., Sandy C. and Brown P., "Small Businesses : Strategy for Survival", Conservative Political Centre, 1976.

Buatsi S. N., "Organisational Adaptation to International Marketing", International Marketing Review, Vol. 3 No. 4, Winter 1986, pp. 17-26.

Builder Ltd., The, "Building and the export drive", The Builder Ltd., 9 January 1976, p. 26.

Building, "Marketing IoB Seminar", Building 217, 31 October 1969, p. 98.

Building Management and Marketing Consultants Limited, "European Construction Industry Consultants", BMMC, 1968 / 69.

Casson M. (Ed.), "The Growth of International Business", George Allen & Unwin, 1983.

Central Statistical Office, "UK National Accounts", HMSO, 1987.

Chalmers J. A., "Measuring changes in regional industrial structure : A comment on Stilwell and Ashby", Urban Studies, Vol. 8, 1971, pp. 289-292.

Chartered Institute of Building, "How to Research", CIOB Occasional Paper, 1982.

Chartered Institute of Building, "The Challenge of Marketing", Building Technology and Management, CIOB, February 1985, pp. 20-27.

Chen A. and Chen C., "The Art of War. A Treatise on Chinese Military Science Compiled about 500 B.C.", Graham Brash (Pte) Ltd., Singapore, 1982.

Cheng L., "The Art of War. Military Manual Written Circa B.C. 510", East Asia Publications (Hong Kong), 1969.

Chisnall P. M., "Effective Industrial Marketing", Longman Group Ltd., 1977.

Chisnall P. M., "Strategic Industrial Marketing", Prentice-Hall International, 1985.

Choudhury N. U. S., "Helping engineering and construction managers cope abroad", International Journal of Project Management, Vol. 7 No. 4, November 1989, pp. 250-251.

Coad R., "The Biography of Sir John W. Laing, CBE (1879-1978)", Hodder and Stoughton, 1979.

Cochlin D. and Dix R., "Building Marketing", Building 218, 20 February 1970, p. 107.

Collier C. A. and Halperin D. A., "Construction Funding. Where the money comes from", 2nd Edition, John Wiley & Sons, 1984.

Collins M., "Research Methods. Responding to survey", ESRC Newsletter 62, Engineering and Science Research Council, June 1988, pp. 38-39.

Coulson-Thomas C. J., "Marketing Communications", Heinemann, 1983.

Crimp M., "The Marketing Research Process", Prentice-Hall International, 1981.

Davies F. A. W., "Preparation and settlement of competitive tenders for building works", Occasional Paper No. 16, Institute of Building, April 1975.

Davies G., "Managing Export Distribution", Heinemann, 1984.

Doyle P., Law P., Weinberg C. and Simmonds K. (Eds.), "Analytical Marketing Management", Harper & Row Ltd., 1974.

Drewer S. P., "In search of a Paradigm - Notes on the Work of D. A. Turin", Habitat International, Vol. 3 No. 1/2, pp. 47-51, 1978.

Engineering News Record, "Directory of Design Firms", McGraw-Hill, 1986/87.

Engineering News Record, "Directory of Contractors", 7th Edition, McGraw-Hill, 1987/88.

Enis B. M. and Cox K. K. (Eds.), "Marketing Classics. A selection of influential articles", 4th Edition, Allyn and Bacon (London), 1981.

Feder R. A., "How to measure marketing performance", Harvard Business Review, May-June 1965, beginning from p. 132.

Fayerweather J., "International Business Strategy and Administration", Ballinger Publishing Company, 1982.

Financial Times, "Overseas Construction", FT Supplement, London, 4 March 1977, pp. 15-26.

Financial Times, "International Construction", FT Supplement, London, 9 November 1982, pp. 17-22.

Financial Times, "International Construction", FT, London, 12 April 1985, pp. 13-17.

Financial Times, "US set to act over Japanese construction barriers", 21 November 1989, p. 7.

Fleming M. C., "Spon's Guide to Housing, Construction and Property Market Statistics", E & F N Spon, 1983.

Fothergill S. and Gudgin G., "In Defence of Shift-Share", Urban Studies, Vol. 16, 1979, pp. 309-319.

Friberg E. G., "1992 : Moves Europeans Are Making", Harvard Business Review, May-June 1989, pp. 85-89.

Golzen G., "Creative competitiveness begins at home", The Sunday Times, 5 November 1989, p. E1.

Gorynski J., "The Role of Construction in Global Socio-Economic Development", Habitat International, Vol. 3 No. 1/2, 1978, pp. 71-76.

Gouldner A. W., "Patterns of Industrial Bureaucracy", Free Press, 1954.

Gray C., Dworatschek S., Gobeli D., Knoepfel H. and Larson E., "International comparison of project organisation structures : use and effectiveness", Journal of

Project Management, Vol. 8 No. 1, February 1990, pp. 25-32.

Green R. T. and Allaway A. W., "Identification of Export Opportunities : A Shift-share Approach", Journal of Marketing, Vol. 49, Winter 1985, pp. 83-88.

Greenwood D. S., "The Role of International Contractors in the Third World", Proceedings of The Institution of Civil Engineers' Meeting on "Contracting in Developing Countries", London, 25 February 1987.

Griffith S. B., "Sun Tzu. The Art of War", Oxford University Press, 1963.

Hable-Selassie S., "Construction Estimates and National Income Accounting in Developing Countries", Habitat International, Vol. 3 No. 1/2, 1978, pp. 53-55.

Hamel G. and Prahalad C. K., "Strategic Intent", Harvard Business Review, May-June 1989, pp. 63-76.

Hart B. H. L., "Strategy", Praeger, New York, 1967.

Harves J. M. and Rao C. P., "A Market Share Analysis of International Trade", International Marketing Review, Vol. 1 No. 1, Autumn 1983, pp. 59-67.

Harvey J., "Modern Economics", 4th Edition, Macmillan Education Ltd., 1983.

Hedlund G. and Kverneland A., "Are Strategies for foreign markets changing ? The case of Swedish Investment in Japan", International Studies of Management and Organisation, Vol. XV No. 2, 1985, pp. 41-59.

Henderson B. D., "The Origin of Strategy", Harvard Business Review, November - December 1989, pp. 139-143.

Hitching C. and Stone D., "Understanding Accounting !", Pitman, 1984.

Holden D. R., Nairn A. G. M. and Swales K., "Shift-share : seconds out, round two", Discussion Paper No. 25, Centre for Urban and Regional Research, University of Glasgow, 1986.

Hooley G. J., West C. J. and Lynch J. E., "Marketing in the UK. A survey of current practice and performance", A report prepared by the University of Bradford, Industrial Market Research Ltd. and The Institute of Marketing (with a commentary by Aubrey Wilson), Institute of Marketing, January 1984.

Howard K. and Sharp J. A., "The Management of a Student Research Project", Gower, 1983.

Huff D. L. and Sherr L. A., "Measure for Determining Differential Growth Rates of Markets", Journal of Marketing Research, Vol. IV, November 1967, pp. 391-395.

Hunt S. D. and Hunt K. A., "Bartels' Metatheory of Marketing : A Perspective", in Gardner D. M. and Winter F. W. (Eds.), 11th Proceedings of the Paul D. Converse Symposium, American Marketing Association, 1982, pp. 50-58.

Hutcheson J. M., "International Marketing Techniques for Engineers", International Marketing Review, Vol. 1 No. 4, Autumn / Winter 1984, pp. 51-59.

Institution of Civil Engineers, "New Civil Engineer : Contractors File", Thomas Telford Ltd., January 1987.

International Trade Forum, "Field research : Part III", I. T. F., October-December 1979, pp. 14-16 and 29-31.

Jacques E., "Organisation for overseas marketing", 3rd Edition, Board of Trade,

January 1969.

Jenkins A., "On Site 1921-71", Heinemann (London) and Taylor Woodrow Services Ltd., 1971.

Jenkins A., "Built on Teamwork", Heinemann (London) and Taylor Woodrow Services Ltd., 1980.

Kafandaris S., "The Building Industry in the Context of Development", Habitat International, Vol. 5 No. 3/4, 1980, pp. 289-322.

Kaplan A., "The Conduct of Inquiry. Methodology for behavioral science", Chandler Publishing Company, 1964.

Kashani K., "Beware the Pitfalls of Global Marketing", Harvard Business Review, September-October 1989, pp. 91-98.

Kharbanda O. P. and Stallworthy E. A., "How to Learn from Project Disasters. True-life stories with a moral for Management", Gower, 1983.

Kroll P., "Economy : We All Live in One Global Village", The Plain Truth, January 1990, pp. 16-17.

Lansley P. R., "A Practical approach to auditing organisational flexibility", Construction Management and Economics, Vol. 1, 1983, pp. 145-156.

Lansley P. R. and Harlow P. A. (Eds.), "Managing Construction Worldwide - Productivity and Human Factors in Construction", Vol. 2, E & F N Spon, 1987.

Lazer W., "Different perceptions of Japanese Marketing", International Marketing Review, Autumn 1985, pp. 31-38.

Liston D. and Reeves N., "The Invisible Economy. A Profile of Britain's invisible exports", The Institute of Export and Pitman, 1988.

Lloyd J., "Comecon ministers start Sofia talks in a double bind", Financial Times, 9 January 1990, p. 5.

Loh, R., "An Analysis on Singapore Construction Service Exports", unpublished paper for the Construction Industry Development Board, Singapore, September 1985.

Lorenz C., "Corporate Structures : When centralisation has a demotivating effect", Financial Times, 1 December 1989, p. 12.

Lovell J., "Marketing : Star or Sceptic ?", Chartered Quantity Surveyor, January 1990, pp. 10-11.

Low S. P., "An evaluation of quality in construction", The Professional Builder, Vol. 4 No. 1, September 1989, pp. 28-36.

Low S. P., "Global Markets in Construction : A North-South Comparison", in Proceedings of the CIB W55/W65 International Symposium on "Building Economics and Construction Management", Sydney, Australia, March 1990 (accepted and forthcoming).

Low S. P., "Marketing organisations for export of construction services", Chartered Builder, Chartered Institute of Building, 1990 (accepted and forthcoming).

Low S. P., "EC 1992 : An analysis of the Single European Construction Market", Chartered Builder, Chartered Institute of Building, 1990 (accepted and forthcoming).

Low S. P., "A Review of the EFTA Construction Market", Chartered Builder, Chartered Institute of Building, 1990 (accepted and forthcoming).

Low S. P., "World Markets in Construction : a regional analysis (Part I)", Construction Management and Economics, 1990 (accepted and forthcoming).

Low S. P., "World Markets in Construction : a country-by-country analysis (Part II)", Construction Management and Economics, 1990 (accepted and forthcoming).

Low S. P., "A Review of the OPEC Construction Market : 1970 - 1984", Construction Management and Economics (1990, forthcoming).

Low S. P., "The Organisation of Construction Export Marketing : Theory and Practice", International Journal of Real Estate and Construction (1990, forthcoming).

Low S. P., "Construction Export Marketing : The Singapore Experience", Asia-Pacific Journal of Marketing (1990, forthcoming).

Low S. P., "A Study of the Construction Industries in ASEAN : 1970 - 1984", in Proceedings of the ASEAN International Symposium on Construction and Development, Asean Constructors Federation, Kuala Lumpur, Malaysia, 7-8 May 1990 (forthcoming).

Low S. P., "The APEC Concept and Implications for the ASEAN Construction Market", in Proceedings of the ASEAN International Symposium on Construction and Development, Asean Constructors Federation, Kuala Lumpur, Malaysia, 7-8 May 1990 (forthcoming).

Magee J. F., "1992 : Moves Americans Must Make", Harvard Business Review, May-June 1989, pp. 78-84.

Maurice R. (Ed.), "National Accounts Statistics. Sources and Methods", HMSO, 1968.

Mintzberg H., "Structures in Fives : Designing Effective Organisations", Prentice-Hall Inc., 1983.

Montagnon P., "Cutting costs at ECGD", Financial Times, 20 November 1989, p. 25.

Montagnon P., "An open door does a service, says OECD. Development is seen to gain from liberalising services trade", Financial Times, 21 November 1989, p. 7.

Morrell D., "Indictment. Power and Politics in the Construction Industry", Faber and Faber Ltd., 1987.

Moser C. A., "Survey methods in social investigation", Heinemann Books on Sociology, 1958.

Murdick R. G. and Cooper D. R., "Business Research. Concepts and Guides", Grid Publishing Inc., 1982.

Musashi M., "A Book of Five Rings", translated by Victor Harris, Allison and Busby Ltd., 1974.

Muspratt M. A., "Conditions affecting projects in less developed countries", International Journal of Project Management, Vol. 5 No. 1, February 1987, pp. 45-53.

National Economic Development Office, "Overseas contracting and consultancy", HMSO, 1969.

National Economic Development Office, "Design and Export", HMSO, 1978.

Negandhi A. R. (Ed.), "Functioning of the Multinational Corporation. A Global

Comparative Study", Pergamon Press, 1980.

Nemeth H., "High-rising sun", Building, 7 February 1986, p. 32.

Newman D., "Organisation Design : An analytical approach to the structuring of organisations", Edward Arnold (Publishers) Ltd., 1973.

Ogunyomi I. A., "The practices and policies of UK construction companies in the developing countries", unpublished M.Com. dissertation, University of Strathclyde, 1984.

Ohmae K., "Managing in a Borderless World", Harvard Business Review, May-June 1989, pp. 152-161.

Osborne J., "The globetrotters in profile : Balfour Beatty", Building, 14 March 1986, pp. 40-41.

Osborne J., "The globetrotters in profile : John Laing", Building, 21 March 1986, pp. 38-39.

Osborne J., "The globetrotters in profile : Lilley construction", Building, 28 March 1986, pp. 36-37.

Oubridge V. W., "The nature of policy", in BIM Information Note 53, "Company Policy", British Institute of Management, 1970, pp. 1-7.

Owen W., "Transportation and World Development", Johns Hopkins University Press, 1987.

Pascale R. T. and Athos A. G., "The Art of Japanese Management", Penguin, 1981.

Piercy N., "Marketing Organisation", George Allen & Unwin, 1987.

Pilditch J., "How managers manage to fail", Management Today, June 1972, pp. 67-70.

Prest M., "Framework that Africa can use to break vicious circle", The Independent, 22 November 1989, p. 25.

Rice R., "Analysis provides key to effective marketing", Financial Times, 30 October 1989, p. 12.

Riddell R., "Africa's statistical problem compounded by inconsistency", Financial Times, 21 December 1989, p. 13.

Samiee S., "Marketing Programming in United States and Foreign-Based Multinational Firms", International Journal of Management, Vol. 2 No. 2, June 1985, pp. 74-80.

Satow K., "The changing state of qualitative research in the United States", Journal of the Market Research Society, Vol. 31 No. 4, October 1989, pp. 521-525.

Seibert J. and Wills G. (Eds.), "Marketing research", Penguin Books, 1970.

Seymour H., Flanagan R. and George N., "International Investment in the construction industry : An application of the eclectic approach", University of Reading, Department of Economics Discussion Papers in International Investment and Business Studies No. 87, July 1985.

Shapiro B. P., "What the Hell is 'Market Oriented' ?", Harvard Business Review, November-December 1988, pp. 119-125.

Sheth J. N., Gardner D. M. and Garrett D. E., "Marketing Theory. Evolution and

Evaluation", John Wiley & Sons, 1988.

Sheth J. N. and Garrett D. E. (Eds.), "Marketing Theory : Classic and Contemporary Readings", South-Western Publishing Co., 1986.

Silverman D., "The Theory of Organisations", Heinemann, 1970.

Simon H. A., "Design Making and Organisational Design", in Pugh D. S. (Ed.), "Organisation Theory", Penguin, 1971, pp. 189-212.

Stacey N. A. H. and Wilson A., "Industrial Marketing Research. Management and Techniques", Hutchinson, 1963.

Star S. H., "Marketing and Its Discontents", Harvard Business Review, November - December 1989, pp. 148-154.

Stilwell F. J. B., "Regional growth and structural adaptation", Urban Studies, Vol. 6, 1969, pp. 162-178.

Stone N., "The Globalization of Europe : An Interview With Wisse Dekker", Harvard Business Review, May-June 1989, pp. 90-95.

Strassmann W. P. and Wells J. (Eds.), "The Global Construction Industry. Strategies for Entry, Growth and Survival", Unwin Hyman Ltd., 1988.

Taylor A., "Impact of 1992 : Joint ventures become more popular", Financial Times, 20 November 1989, p. 21.

Taylor F., "Scientific Management", in Pugh D. S. (Ed.), "Organisation Theory", Penguin, 1971, pp. 124-146.

Tomkinson M. and Gillard M., "Nothing to declare. The Political Corruptions of John Poulson", John Calder (Publishers) Ltd., 1980.

Treasure J., "The availability and use of public statistics in the UK", Journal of the Market Research Society, Vol. 31 No. 4, October 1989, pp. 581-589.

Turin D. A., "Marketing : Identifying the construction market", Building, 19 February 1971, pp. 113-114.

Turin D. A., "The difficult art of prediction", Building, 1 March 1974, pp. 65-66.

Turin D. A., "Perhaps, Perhaps, Perhaps ...", Habitat International, Vol. 3 No. 1/2, 1978, pp. 77-78.

Turin D. A., "It had to be said", Habitat International, Vol. 3 No. 1/2, 1978, pp. 141-143.

Turin D. A., "What do we mean by Building ?", Habitat International, Vol. 5 No. 3/4, 1980, pp. 271-288.

Walker R., "Applied Qualitative Research", Gower, 1985.

Weber M., "Legitimate Authority and Bureaucracy", in Pugh D. S. (Ed.), "Organisation Theory", Penguin, 1971, pp. 15-29.

Wee C. H. and Wong P. W., "Identifying export opportunities for Singaporean firms through shift-share analysis", Singapore Management Review, Vol. II, 1987, pp. 32-51.

Wheatley E. W., "Marketing for the Professional Service Firm", International Journal of Management, Vol. 2 No. 1, April 1985, pp. 42-52.

Wilson A., "Profit from careful study of the market and methods", Contract Journal, 14 November 1985, pp. 16-17.

Zahlan A. B., "The Arab Construction Industry", Croom Helm (London), 1983.

## BIBLIOGRAPHY

### Singapore Economy and Construction Industry


Aleshire I., "A dramatic year of ups and downs. A Review of the fluctuating property market of 1985", Straits Times, 31 December 1985.

Aleshire I., "Panelists cite factors contributing to our economic woes", Straits Times, 1 March 1986.

Asean Secretariat, "Annual Report of the Asean Standing Committee 1986-1987", 1987.

Asean Secretariat, "An Overview of Asean", Asean Information Series No. 4, October 1987.

Asean Secretariat, "Joint Declaration. Seventh ASEAN-EC Ministerial Meeting. Dusseldorf, 2-3 May 1988", Asean Newsletter, No. 27, May-June 1988, pp. 8-13.

Asia Pacific Contractor, "PNG Mission Visits SCAL", February 1987, p. 41.

Asia Pacific Contractor, "Unfair Competition", March 1987, pp. 39-41.

Asia Pacific Contractor, "SCAL Selling Services Abroad", April 1987, p. 48.

Asia Pacific Contractor, "IFAWPCA News : Regional Unity", July 1987, pp. 42-43.

Au-Yong K., "Building Skills", Mirror, Vol. 22 No. 16, 15 August 1986, p. 13.

Backhouse S., "Singapore", David & Charles (Publishers) Ltd., 1972.

Balakrishnan N., "Singapore to host export meeting", Straits Times, 16 January 1986.

Balachandrer S. B., "Services for export exhibit potential", Mirror, Vol. 22 No. 12, 15 June 1986, pp. 1-4.

Baxter A., "Singapore", Financial Times Survey, 13 November 1989, pp. 33-38.

Bowman C. R. G., "Overseas Information Services for exporters", The Singapore Manager, Singapore Institute of Management, Vol. 9 No. 2, December 1975, pp. 25-27.

Buang Z., "Top Builders", Mirror, Vol. 24 No. 7, 1 April 1988, pp. 5-7.

Buang Z., "Upholding Free Trade", Mirror Vol. 25 No. 1, 1 January 1989, pp. 1-4.

Buang Z., "Why Singapore practices free trade", Economic Bulletin, Singapore International Chamber of Commerce, February 1989, pp. 12-15.

Buchanan I., "Singapore in Southeast Asia. An Economic and Political Appraisal", G. Bell and Sons Ltd., London, 1972.

Bunke H. C., "Lessons from Singapore", Business Horizons, Vol. 32 No. 3, Indiana University Graduate School of Business, May - June 1989, pp. 2-10.

Burger W. and Liu M., "A Hard Act to Follow. Singapore's Lee Kuan Yew prepares to pass the torch - but what comes next ?", Newsweek, 23 February 1987, pp. 22-31.

Business Times, "Three local firms land $15m deal", 8 January 1980, p. 1.

Business Times, "Ssangyong wins $18m Raffles City Job", 31 July 1980, p. 1.

Business Times", Builders must help themselves", 10 October 1980, p. 6.

Business Times, "Contractors making slow progress", 1 December 1980, p. 12.

Business Times, "Diversification may not be wise", 2 December 1980, p. 6.

Business Times, "Poor response to Kent Ridge Tender", 31 December 1980, p. 1.

Business Times, "The makings of a marketing man", 4 May 1981.

Business Times, "Scal deserves our full support", 19 June 1981, p. 6.

Business Times, "Shoulder hods !", 9 July 1981, p. 6.

Business Times, "Always room for creativity in pre-fab methods", 15 July 1981, p. 2.

Business Times, "Building projects attract more South Koreans", 15 July 1981.

Business Times, "Big jump in costs of construction", 28 December 1981, pp. 1, 12.

Business Times, "Contractors pave the way", 9 January 1987, p. 8.

Business Times, "Private sector can now tap skills of civil servants", 21 January 1987, p. 3.

Chan H. C., "Winning friends who understand", Mirror, Vol. 24 No. 17, 1 September 1988, pp. 12-14.

Chan L., "A look at international transfer pricing", Economic Bulletin, Singapore International Chamber of Commerce", February 1989, pp. 21-23.

Chew L., "Better terms for Kent Ridge job", Business Times, 11 May 1981, p. 1.

Chow K. F., "The Formation of joint ventures in International Contracting", SES Journal, Stock Exchange of Singapore, February 1980, pp. 14-16.

Chow K. F., "Opportunities and Implications in Construction Maintenance and Retrofitting", CIDB Review, January-March 1986, pp. 53-65.

Committee on Development of International Marketing Expertise, "Excellence in Developing Human Resources in Exports", Singapore International Marketing Training Programme Calendar, Vol. 3 No. 4, October 1989, p. 1.

Construction Industry Development Board, "Introducing the Construction Industry Development Board", 1984.

Construction Industry Development Board, "Taxation of Overseas Construction Operations", CIDB Review, April-June 1987, pp. 17-21.

Construction Industry Training Centre, "Rise up to the challenge. Be a builder", Mirror, Vol. 23 No. 4, 15 February 1987, p. 11.

Construction Statistics Bureau, "Economic Survey of the Construction Industry", CIDB Review, July-September 1987, pp. 7-19.

Cox N., "Looking for better times - sometime", Asian Business, July 1987, pp. 51-52.

Dale O. J., "The Redevelopment of the Central Area of Singapore : An examination of trends and policies with particular reference to retail and services", unpublished Ph.D. thesis, School of Architecture, National University of Singapore, 1988.

De Silva G., "Our building workers highest paid in Asean", Straits Times Weekly Overseas Edition, 15 April 1989, p. 19.

Dhaliwal R., "Bigger MRT role for S'pore contractors. They will be more involved in second phase", Straits Times, 4 January 1986.

Dhaliwal R., "Singapore firms get more than half MRT jobs", Straits Times, 8 April 1986.

Drysdale J., "Singapore. Struggle for success", George Allen and Unwin, 1984.

Economic Development Board, "Jurong Industrial Estate", 1963.

Engineering News Records, "Tiny Singapore offers big construction market", McGraw-Hill Construction Weekly, 4 February 1982, pp. 30-31.

Export Credit Insurance Corporation of Singapore, "Annual Report & Accounts", 1986.

Export Credit Insurance Corporation of Singapore, "Clearing an image", Risk Focus, June / July 1987, pp. 4-5.

Export Credit Insurance Corporation of Singapore, "Tips on how to sell successfully overseas", Risk Focus, June / July 1987, p. 7.

Export Credit Insurance Corporation of Singapore, "Survey of MNCs indicate sizeable interest in credit insurance", Risk Focus, August / September 1987, pp. 1-3.

Fernandez M., "S'pore firm in cargo deal with Tianjin", Straits Times, 19 April 1986.

Fish H., "Singapore Construction Going Bust on the Boom", Modern Asia, January-February 1984, pp. 13-15.

Folsom R. H., "An ASEAN Regional Market Is Still Only A Dream", East Asian Executive Reports, February 1986, pp. 16-18.

Ghng S. K., "Breaking New Grounds", Asian Architects and Contractors, February 1988, pp. 31-33.

Grayson C. J., "The relationship of quality and productivity", Productivity Digest, National Productivity Board (Singapore), May 1989, pp. 13-14 and 23.

Hazelhurst P., "Singapore and Seoul held up as models for developing nations", Straits Times Weekly Overseas Edition, 8 July 1989, p. 5.

Hoe A., "Export Marketing tips for manufacturers", Straits Times, 27 November 1985.

Hoe A., "Building and construction contracts awarded take a dip", Straits Times, 16 December 1985.

Housing Committee, "Report of the Housing Committee", Singapore, 1947.

Indran J. D., "Contractors fear losing Sumitomo Jobs to Japanese", Straits Times, 19 June 1980, p. 10.

Information Division, "Construction industry : Meeting new challenges", Mirror, Vol. 20 No. 15, 1 August 1984, pp. 1-5.

Information Division, "EDB's new strategy. Total Business", Mirror, Vol. 22 No. 7, 1 April 1986, pp. 12-13.

Information Division, "Singapore 1987", Ministry of Communications and Information, 1987.

Kaye L., "Catching the Gravy Train", Far Eastern Economic Review, 26 April 1984, pp. 148-149.

Keys P., "Board with the future", What's New in Building, February 1984, p. 48.

Keys P., "If you can't get rid of them, team up with them", What's New in Building, October 1985, p. 48.

Khalik S., "Singapore loses Shanghai contract. But consortium hopes to clinch related airport projects", Straits Times, 8 July 1986.

Khan T. L., "Property market smiling again", Mirror, Vol. 25 No. 6, 15 March 1985, pp. 1-3.

Khan T. L., "From slums To homes", Mirror, Vol. 23 No. 11, 1 June 1987, pp. 1-3.

Khan T. L., "Overseeing a job with an overseas experience", Mirror, Vol. 23 No. 11, 15 June 1987, pp. 11-13.

Koh T., "The Politics of US Trade Policy in 1988 and the Implications for East Asia", Mirror, Vol. 24 No. 6, 15 March 1988, pp. 6-7.

Kraar L., "Asia's little dragons still breathing fire", Mirror, Vol. 22 No. 15, 1 August 1986, pp. 10-13.

Kulkarni V. G., "Singapore's ills are mostly its own work", Far Eastern Economic Review, 26 September 1985, pp. 104-105.

Lee H. S., "Record Year for Building Projects", Business Times, 31 January 1984, p. 1.

Lee H. S., "Developers fight shy of new projects", Business Times, 2 March 1984, p. 3.

Lee H. S., "Teh explains stand on export financing for contractors", Business Times, 8 August 1984.

Lee H. S., "High-rise rice bowl. HDB's contribution to the building industry", Singapore Business, Vol. 11 No. 1, January 1987, pp. 49-50.

Lee H. S., "Building Contracts dropped by 20pc to $3.85b last year", Business Times, 10 February 1987.

Lee H. S., "Pledge to help secure foreign construction jobs", Business Times, 13 May 1987, p. 1.

Lee H. S., "S'pore builders are shaping out to ship out. Remarkable performance by local contractors who are turning to the region for business", Straits Times, 25 June 1987, p. 21.

Lee L., "How to find the right joint-venture partner", Business Times, 29 January 1985.

Lee L., "Building Up a New Corporate Image - Lum Chang", Business Times, 13 July 1987, p. 2.

Leong C. C., "Technology Transfer Strategies for Singapore firms", unpublished conference paper, AR Format Pte. Ltd., Singapore, 1986.

Lim J., "The great build-up gets under way", Business Times, 21 February 1984.

Lim K. L., Chin K. H., Chin K. F., Goh L. and Ong S. A., "Management of Singapore's New Towns", in "A Place to Live : More Effective Low-Cost Housing in Asia", Yeung Y. M. (Ed.), International Development Research Centre, 1983, pp. 49-64.

Lim R., "Construction Exports : Current Developments & Opportunities", CIDB Review,

April-June 1988, Construction Industry Development Board, pp. 9-18.

Lim S. N., "Local contractors sending mission to HK and Taiwan", Business Times, 8 February 1984.

Lim S. N., "Share of Contracts adds up to about 20% - More MRT Work going to local companies", Business Times, 12 November 1985.

Lim W. S. W., "Improving Contractors' lot", Singapore Business, October 1981, p. 27.

Lim W.S.W., "A Tale of the Unexpected. The Singapore Housing Experience", Habitat International, Vol. 12 No. 2, 1988, pp. 27-34.

Loh R., "Construction Exports - Recent Successes and Prospects", CIDB Review, April-June 1987, Construction Industry Development Board, pp. 5-10.

Loh T. S. M., "Building Across Boundaries - Foreign Contractors in Singapore", Building Preview, June 1985, pp. 13-28.

Low C. M., "Construction Prospects in 1988", CIDB Review, January-March 1988, Construction Industry Development Board, pp. 5-10.

Low S. K., "How to export : A Guide", Singapore International Chamber of Commerce, 1980.

Low S. P., "Legislative And Regulatory Control Of Construction In Singapore", Unibeam Vol. XIV, 1985/1986, beginning from p. 19.

Low S. P., "Facets of Building Collapse", The Professional Builder, Vol. 3 No. 1, March 1987, pp. 19-21.

Low S. P. (with Li H. H.), "Estimating and Tendering Trends In Singapore", Unibeam Vol. XIV, 1985/1986, beginning from p. 50.

Low S. P. (with Li H. H.), "An analysis of bidding strategies in Singapore", Building Technology and Management, August / September 1986, pp. 28-34.

Matthews B., "Preference for Asean contractors", Asian Building & Construction, May 1985, p. 9.

McLain I., "Construction in Asia : Gloomy Now, Rosy Future", Modern Asia, June 1984, pp. 13-17.

Ministry of Culture, "A Year of Construction. Singapore Government's Policy Statement. June 1960 - June 1961", Singapore, 1960.

Ministry of Culture, "Public Housing in Singapore. A Handbook of Facts and Figures", Singapore, 1967.

Ministry for Local Government, Lands and Housing, "Singapore - The Better Future. An explanation of the Master Plan", Singapore, 1958.

Ministry of National Development, "The Work of the Singapore Improvement Trust", Singapore, 1959.

Ministry of National Development, "Annual Report", Singapore, 1975.

Ministry of National Development, "Annual Report", Singapore, 1976.

Ministry of Trade and Industry, "Economic Survey of Singapore", various issues.

Neo R. B., "Challenges for the construction trades", IOB Yearbook, Institute of

Building (Singapore Centre), 1980, pp. 105-106.

Newlands M., "Construction in Asia : All eyes turn to China", Modern Asia, June 1985, pp. 17-23.

Ng P. S., "Open door to China", Mirror, Vol. 24 No. 8, 15 April 1988, pp. 5-7.

Ofori G., et. al., "Learning From The Current Recession", Builders World '86, Singapore Institute of Building Yearbook, 1986, pp. 130-131.

Planning Department, "Annual Report", Singapore, various issues from 1960 to 1974.

Provisional Mass Rapid Transit Authority, "Annual Report', Singapore, 1982/83.

Public Utilities Board, "Public Utilities in Large Scale Housing Development", Singapore, in The Second Afro-Asia Housing Congress, 1966.

Public Works Department, "Annual Report", Singapore, various issues from 1949 to 1968.

Quah S. T., "Opportunities in Construction Research and Development", CIDB Review, July-September 1987, Construction Industry Development Board, pp. 29-35.

Raman V., "Local companies looking out", Mirror, Vol. 25 No. 14, 15 July 1989, pp. 1-4.

Ran S., "Skills there are - but at a high price. What contractors' team found in HK, Taiwan", Straits Times, 21 April 1984.

Rau A. N., "The Construction Industry in Asia : A Survey", Asian Productivity Organisation, 1983.

Real Estate Developers' Association of Singapore, "Real Estates News", various issues.

Seaward N., "Help for the opposition. The building industry in Singapore is plagued by bankruptcies and undercut by foreign competitors", Far East Economic Review, 13 June 1985.

Seow S., "Govt acts to curb influx of foreign workers : Levy increased and limit placed on number of foreigners in firms", Straits Times Weekly Overseas Edition, 19 November 1988, p. 1 and p. 24.

Seow S., "EDB launches major ad campaign overseas", Straits Times Weekly Overseas Edition, 7 January 1989, p. 7.

Sieg L., "Japan's building firms get more orders in the US", Straits Times, 16 June 1987.

Singapore Bulletin, "Total trading city", January 1987, p. 9.

Singapore Bulletin, "EDB to boost joint ventures", February 1987, p. 7.

Singapore Bulletin, "EDB to get $847m", March 1987, p. 14.

Singapore Bulletin, "Economy on recovery route", April 1987, p. 7.

Singapore Bulletin, "Tommy Koh raps call for trade action against S'pore", June 1987, p. 6.

Singapore Bulletin, "S'pore as Asia's countertrade centre", September 1987, p. 6.

Singapore Bulletin, "Trade Mission opens up Taiwan markets", July 1988, p. 8.

Singapore Bulletin, "Competitive Construction", December 1988, p. 17.

Singapore Bulletin, "SMA sets up company to promote trade", May 1989, p. 3.

Singapore Bulletin, "Boost for overseas trade promotion", May 1989, p. 4.

Singapore Bulletin, "All out to 'sell' Singapore", June 1989, p. 7.

Singapore Bulletin, "Director to head export institute", July 1989, p. 6.

Singapore Contractors Association Ltd., "Don't deride local contractors", The Contractor, Vol.1 No. 4, 1982, p. 1.

Singapore Contractors Association Ltd., "Lean Times Ahead ?", The Contractor, Vol. 5 No. 1, January 1987, p. 1 and p. 3.

Singapore Contractors Association Ltd., "ACF Pledges Regional Unity", The Contractor, Vol. 5 No. 2, February / March 1987, pp. 6-7.

Singapore Contractors Association Ltd., "Advisory Committee to export engineering services", The Contractor, Vol. 5 No. 5, June 1987, p. 8.

Singapore Contractors Association Ltd., "Contractors keen to look further afield for export markets", The Contractor, Vol. 5 No. 12, March 1988, pp. 1 and 9.

Singapore Improvement Trust, "The Work of the Singapore Improvement Trust 1927-1947", (compiled by J. M. Fraser), Singapore, 1948.

Singapore Improvement Trust, "The Work of the Singapore Improvement Trust", Singapore, various issues from 1948 to 1959.

Singapore Trade News, "Export Services International '89", Singapore Trade Development Board, May / June 1989, p. 5.

Singh G., "Singapore construction slows down", Asian Building & Construction, September 1984, p. 12.

Singh G., "No-grow for Singapore construction", Asian Building & Construction, August 1985, p. 19.

Singh S., "Acquisition and selection of plants in the construction industry", in Proceedings of the CIB Mini-Symposium, "The Problems of Organisation and Management of Construction in developing countries and International Contracting", Istanbul, 1982, pp. I/17-1 to I/17-12.

Smith J., "An Interview with Paul Lim", The Professional Builder, Vol. 1 No. 2, May 1984, pp. 35-36.

Smith J., "A Review of Prospects in the Construction Industry of Singapore", The Building Economist, September 1986, pp. 10-12.

Smith J. and Wong K. H., "Bills of Quantities in Singapore - A Survey of their Use and Application", The Building Economist, September 1985, pp. 18-22.

Smith R. A., "Recreation for High-Rise Living in Singapore", Habitat International, Vol. 11 No. 3, 1987, pp. 123-139.

Soh D., "Two building partners conclude deal with China", Straits Times, 15 June 1985, p. 21.

Soh D., "Limitations builders face in China", Straits Times, 26 October 1985.

Southeast Asia Building, "1983, 1984. Construction's prime performance", January 1984, p. 7.

Southeast Asia Building, "Property. Sobering up in a see-saw scenario", February 1984, p. 9.

Straits Times, "Mum's the one behind labour shortage in building trade", 13 November 1980, p. 13.

Straits Times, "Govt takeover proposal : Builders' fears", 24 November 1980, p. 12.

Straits Times, "Prefabricated answer to construction industry woes", 9 July 1981, p. 1.

Straits Times, "Dangers of losing control of Project : Contractor", 12 September 1981, p. 12.

Straits Times, "Contractors urged to raised standards with more experts in management", 25 October 1981, p. 6.

Straits Times, "Call to harmonise Asean legal systems", 6 November 1985.

Straits Times, "Joint ventures could have saved S'pore $1.7 billion", 30 November 1985.

Straits Times, "Construction and property. Glut blamed on Government's role in sector", 1 January 1986.

Straits Times, "Firm gets MRT job on seventh try. Taiwan-S'pore joint venture lands $99m contract", 7 January 1986.

Straits Times, "The TDB can Only do so much", 13 January 1986.

Straits Times, "Two get grants for overseas offices", 16 January 1986.

Straits Times, "Property panel's suggestions worth looking into", 11 March 1986.

Straits Times, "'Timing vital' in China joint ventures", 18 April 1986.

Straits Times, "Search for market segments", 26 May 1986.

Straits Times, "Revised incentive schemes topic for EDB forum", 5 June 1986.

Straits Times, "S'pore potential centre for countertrade", 7 June 1986.

Straits Times, "Countertrade plan deserves closer scrutiny", 24 June 1986.

Straits Times, "Number of private projects planned hits seven-year low", 4 July 1986.

Straits Times, "Don to help EDB beat the competition", 15 July 1986.

Straits Times, "Maintenance of buildings is $724m business. Figure will go up to $800m by 1990 - report", 19 September 1986, p. 15.

Straits Times, "Construction industry borrowed more in '86", 19 January 1987, p. 21.

Straits Times, "Value of building deals abroad rises sharply. Export of expertise a move in the right direction - Dhana", 16 October 1987.

Straits Times Weekly Overseas Edition, "Architects will get more freedom under new rules", 30 July 1988, p. 5.

Straits Times Weekly Overseas Edition, "Lum Chang proposes bonus, right issue", 13 August 1988, p. 19.

Straits Times Weekly Overseas Edition, "Timely help for exporters", 10 December 1988, p. 12.

Straits Times Weekly Overseas Edition, "Sheng-Li to step up its overseas investments", 22 April 1989, p. 2.

Straits Times Weekly Overseas Edition, "Striking out overseas", 22 April 1989, p. 12.

Straits Times Weekly Overseas Edition, "Go global, large local firms urged. Govt ready to help and may even take a stake in ventures abroad, says BG Lee", 22 April 1989, p. 24.

Straits Times Weekly Overseas Edition, "Harvard guru to help S'pore develop marketing strategy", 10 June 1989, p. 15.

Straits Times Weekly Overseas Edition, "HDB sets up private company to sell services overseas", 8 July 1989, p. 4.

Straits Times Weekly Overseas Edition, "Marketing the message better", 4 November 1989, p. 12.

Sunday Times, "Local builders cut cost in the face of foreign competition", 22 October 1986.

Tai C. L., "Housing Policy and High-rise Living. A study of Singapore's Public Housing", Chopmen Publishers, 1988.

Takenaka H., "Building on the success", Mirror, Vol. 23 No. 7, 1 April 1987, pp. 13-15.

Tan C. C., "Singapore as a countertrade service centre : The role of banks", Occasional Papers Series No. 6, The Development Bank of Singapore Ltd., Research Department, October 1986.

Tan D., "Going for the competitive edge", Mirror, Vol. 23 No. 19, 1 October 1987, pp. 6-7.

Tan E. (Ed.), "Construction Markets Reports (Contractors Edition)", Construction Industry Development Board, various issues.

Tan J., "EDB plans for cheap loans to lure investors. Move to counter grants given by other countries", Straits Times, 3 July 1986.

Tan J., "Contractors Expect a Bleak Year Ahead", Asian Architect and Contractor, May 1987, pp. 18-20.

Tan Y. S., "Twin Engines of Growth", Mirror, Vol. 23 No. 5, 1 March 1987, pp. 1-5.

Tay P., "Singapore's first indoor stadium", CIDB Review, April-June 1988, Construction Industry Development Board, p. 50.

Teo A., "Foreign companies disillusioned with China", Business Times, 22 December 1986.

Teo L. H., "Stiffer penalties for hiring illegal workers", Straits Times, 17 February 1984.

Toh S. S., Lim C. N. and Smith J., "The Building Industry of Singapore - A Personal View", The Professional Builder, Vol. 2 No. 3 , December 1985, pp. 17-19.

Trade Development Board, "Go into Joint-Ventures to get ADB Jobs", Tradespur, Singapore, November 1985, p. 3.

Trade Development Board, "Annual Report", Singapore, 1985/86.

Trade Development Board, "Asian Development Bank's Operations", Tradespur, Singapore, February 1986, p. 2 and p. 6.

Trade Development Board, "Tips on Marketing Technical Consulting Services", Tradespur, Singapore, March 1987, p. 6.

Trade Development Board, "Success in World Markets", Tradespur, Singapore, July 1987, p. 8.

Trade Development Board, "Excellence In Exporting", Tradespur, Singapore, August 1987, p. 8.

Vogel E. F., "Singapore - a little dragon tamed, a roaring lion unleashed", Straits Times Weekly Overseas Edition, 2 December 1989, p. 13.

Walker-Smith P., "Technology Transfer in Elevated MRT Construction", CIDB Review, April-June 1987, Construction Industry Development Board, pp. 29-35.

Wee A., "Contract with a quarter of mankind. Singapore contractors are trying to cash in on the edge they have in the Chinese market because of their cultural affinity", Singapore Business, December 1984, p. 19 and p. 21.

Wee A., "S'pore group signs letters of intent for China projects", Straits Times, 4 July 1986.

Wee A., "Group of 5 wins $94m Shanghai Hotel Deal : No investment strings attached for the plum contract", Straits Times, 8 January 1987, p. 32.

What's New in Building, "Are Singapore's contractors headed towards extinction ?", September 1984, p. 58.

Wilson D., "The Future Role of Singapore", Oxford University Press, 1972.

Wong A. K., "Drake and Scull wins $8m jobs", Business Times, 10 December 1981.

Wong A. K., "Singapore steps up exports to Africa", Straits Times, 18 June 1986.

Wong K. P., "Essays on the Singapore Economy", Federal Publications and Nanyang Siang Pau, Singapore, 1982.

Wong M. Y., "Big league business for South Korean construction companies", Straits Times, 17 August 1981, p. 20.

Wong M. Y., "Brick Makers complain of foreign threat", Business Times, 26 October 1982.

Yang S. S., "Problems, Prospects & Priorities of the building industry in the 80's", Southeast Asia Building, June 1980, pp. 73-80.

Yeh S. H. K. (Ed.), "Public Housing in Singapore. A Multi-disciplinary Study", Singapore University Press, 1975.

Yeo C., "The Singapore Shophouse 1819-1987. A Historical Investigation", unpublished M.Sc.(Arch) dissertation, University College London, 1987.

Yeung Y. M., "National Development Policy and Urban Transformation in Singapore : A study of Public Housing and the Marketing System", The University of Chicago,

Department of Geography, Research Paper No. 149, 1973.

Yip Y. H. (Ed.), "Development Planning in Southeast Asia : Role of the University", Regional Institute of Higher Education and Development, Singapore, 1973.

Zhou M., "Brickbats from contractors", Business Times, 29 August 1985.

"Standard Country or Area Codes for Statistical Use", Statistical Papers Series M No. 49 Rev. 2. Department of International Economic and Social Affairs. United Nations. 1982.

1. The present publication lists standard codes and abbreviations of the English Language names of countries or areas, together with standard codes of selected groupings of countries or areas, for use in processing and tabulating data. ... The countries or areas shown in this publication are those for which statistical data are or may be compiled by the UN Statistical Office as of 1 January 1982. The groupings of countries or areas shown are a selection of groupings of economic and social interest, used by the UN Statistical Office as of 1 January 1982 (UN, 1982:v).
2. The geographical coverage of a country or area, or the composition of a grouping, may change over time, and users should take such changes into account when using this publication in relating data for different time periods (UN, 1982:vi).

## GEOGRAPHICAL GROUPINGS

## AFRICA

### a. Eastern Africa

British Indian Ocean Territory
Burundi*
Comoros*
Djibouti*
Ethiopia*
Kenya*
Madagascar*
Malawi*
Mauritius*
Mozambique*
Reunion*
Rwanda*
Seychelles*
Somalia*
Tanzania*
Uganda*
Zambia*
Zimbabwe*

### b. Middle Africa

Angola*
Cameroon*
Central African Republic*
Chad*
Congo*
Equatorial Guinea*
Gabon*
Sao Tome & Principe*
Zaire*

### c. Northern Africa

Algeria*
Egypt*
Libya*
Morocco*
Sudan*
Tunisia*
Western Sahara

### d. Southern Africa

Botswana*
Lesotho*
Namibia*
South Africa*
Swaziland*

### e. Western Africa

Benin*
Burkina Faso*
Cape Verde*
Gambia*
Ghana*
Guinea*
Guinea-Bissau*
Ivory Coast*
Liberia*
Mali*
Mauritania*
Niger*
Nigeria*
St. Helena
Senegal*
Sierra Leone*
Togo*

## AMERICAS

### a. Caribbean America

Anguilla
Antigua & Barbuda*
Bahamas*
Barbados*
British Virgin Islands*
Cayman Islands
Cuba*
Dominica*
Dominican Republic*
Grenada*
Guadeloupe*
Haiti*
Jamaica*
Martinique*
Monserrat*
Netherlands Antilles*
Puerto Rico*
St. Christopher-Nevis*
Saint Lucia*
St. Vincent & the Grenadines*
Trinidad & Tobago*
Turks & Caicos Islands*
United States Virgin Islands*

b. Central America

Belize*
Costa Rica*
El Salvador*
Guatemala*
Honduras*
Mexico*
Nicaragua*
Panama*

c. Northern America

Bermuda*
Canada*
Greenland*
St. Pierre & Miquelon
United States*

d. South America

Argentina*
Bolivia*
Brazil*
Chile*
Colombia*
Ecuador*
Falkland Islands
French Guiana*
Guyana*
Paraguay*
Peru*
Suriname*
Uruguay*
Venezuela*

## ASIA

a. Eastern Asia

China*
Hong Kong*
Japan*
North Korea*
South Korea*
Macau
Mongolia*
Taiwan*

b. Southeastern Asia

Brunei*
Burma*
Democratic Kampuchea*
East Timor
Indonesia*
Lao, P.D.R.*
Malaysia*
Philippines*
Singapore*
Thailand*
Vietnam*

c. Southern Asia

Afghanistan*
Bangladesh*
Bhutan*
India*
Iran*
Maldives*
Nepal*
Pakistan*
Sri Lanka*

d. Western Asia

Bahrain*
Cyprus*
Democratic Yemen*
Gaza Strip (Palestine)
Iraq*
Israel*
Jordan*
Kuwait*
Lebanon*
Oman*
Qatar*
Saudi Arabia*
Syria*
Turkey*
United Arab Emirates*
Yemen*

## EUROPE

a. Eastern Europe

Bulgaria*
Czechoslovakia*
East Germany*
Hungary*
Poland*
Romania*

b. Northern Europe

Channel Islands
Denmark*
Faeroe Islands
Finland*
Iceland*
Ireland*
Isle of Man
Norway*
Svalbard & Jan Mayen Islands
Sweden*
United Kingdom*

c. Southern Europe

Albania*
Andorra
Gibraltar
Greece*
Holy See
Italy*
Malta*
Portugal*
San Marino
Spain*
Yugoslavia*

d. Western Europe

Austria*
Belgium*
France*
West Germany*
Liechtenstein
Luxembourg*
Monaco
Netherlands*
Switzerland*

## OCEANIA

### a. Australia & New Zealand

Australia*
New Zealand*

### b. Melanesia

New Caledonia*
Norfolk Island
Papua New Guinea*
Solomon Islands*
Vanuatu*

### c. Micronesia

Canton & Enderbury Islands
Christmas Island (Australia)
Cocos (Keeling) Islands
Guam
Johnston Island
Kiribati*
Midway Islands
Nauru
Niue
Pacific Islands (Trust Territory)
Pitcairn Island
Tokelau
Tuvalu
Wake Island

### d. Polynesia

American Samoa
Cook Islands*
Fiji*
French Polynesia*
Samoa*
Tonga*
Wallis and Futuna Islands

## UNION OF SOVIET SOCIALIST REPUBLICS*

(Including Byelorussian Soviet Socialist Republic and the Ukrainian Soviet Socialist Republic).

**(*) indicates countries and territories considered in the analysis for Chapter 10.**

**Organisation :** _____

**Appointment of Interviewee :** _____

| PLEASE TICK THE APPROPRIATE BOXES : | Mainly | Occasionally | Not at all |
|---|---|---|---|
| 1. What types of work does your company normally undertake overseas ? | | | |
| a. Building works | ☐ | ☐ | ☐ |
| b. Civil engineering works | ☐ | ☐ | ☐ |
| c. M & E works | ☐ | ☐ | ☐ |
| 2. Which regions of the world have your company worked in before ? | | | |
| a. Western Europe (eg. France, Austria) | ☐ | ☐ | ☐ |
| b. Eastern Europe (eg. Poland, Romania) | ☐ | ☐ | ☐ |
| c. USSR | ☐ | ☐ | ☐ |
| d. Northern Europe (eg. UK, Sweden) | ☐ | ☐ | ☐ |
| e. Southern Europe (eg. Italy, Spain) | ☐ | ☐ | ☐ |
| f. North America (eg. US, Canada) | ☐ | ☐ | ☐ |
| g. South America (eg. Brazil, Chile) | ☐ | ☐ | ☐ |
| h. Central America (eg. Mexico, Panama) | ☐ | ☐ | ☐ |
| i. Caribbean America (eg. Barbados, Haiti) | ☐ | ☐ | ☐ |
| j. Northern Africa (eg. Egypt, Libya) | ☐ | ☐ | ☐ |
| k. Southern Africa (eg. South Africa) | ☐ | ☐ | ☐ |
| l. Central Africa (eg. Chad, Zaire) | ☐ | ☐ | ☐ |
| m. East Africa (eg. Kenya, Zimbabwe) | ☐ | ☐ | ☐ |
| n. West Africa (eg. Ghana, Nigeria) | ☐ | ☐ | ☐ |
| o. Southeast Asia (eg. Malaysia, Thailand) | ☐ | ☐ | ☐ |
| p. South Asia (eg. India, Sri Lanka) | ☐ | ☐ | ☐ |
| q. East Asia (eg. Hong Kong, China) | ☐ | ☐ | ☐ |
| r. West Asia (i.e. the Middle East) | ☐ | ☐ | ☐ |
| s. Oceania (eg. Australia, New Zealand) | ☐ | ☐ | ☐ |
| 3. How does your company identify overseas opportunities ? | | | |
| a. Desk Research | ☐ | ☐ | ☐ |
| b. Construction Magazines | ☐ | ☐ | ☐ |
| c. Overseas Missions | ☐ | ☐ | ☐ |
| d. Government Agencies (DTI, BOTB, FCO, etc.) | ☐ | ☐ | ☐ |
| e. Funding Agencies (World Bank, etc.) | ☐ | ☐ | ☐ |
| f. Business Associates (Bankers, etc.) | ☐ | ☐ | ☐ |
| g. Other Joint Venture Partners | ☐ | ☐ | ☐ |
| h. Previous Clients | ☐ | ☐ | ☐ |
| i. Branch Offices stationed overseas | ☐ | ☐ | ☐ |

4. What was your company turnover in the last three financial years ?

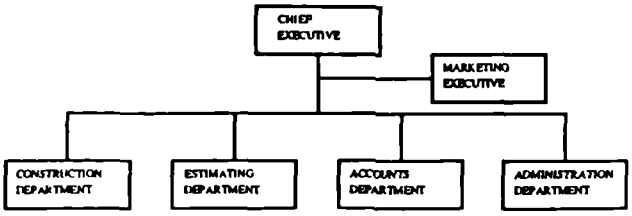
| | 1988 | 1987 | 1986 |
|---|---|---|---|
| Approximately : | £_____ | £_____ | £_____ |

5. What percentage of this turnover came from overseas contracts ?

| | 1988 | 1987 | 1986 |
|---|---|---|---|
| Approximately : | _____ % | _____ % | _____ % |

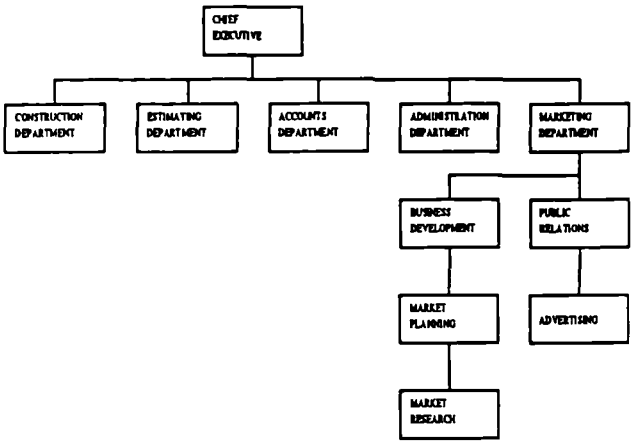
Which of the following seven organisation set-ups would you consider to be appropriate for your company (Please tick) :

| Appropriate | May be Appropriate | Inappropriate |
|---|---|---|



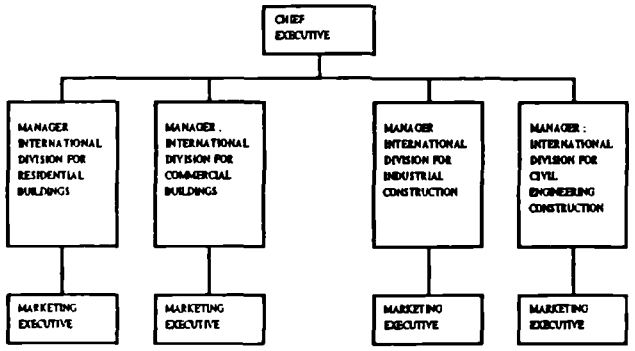

Comments : _____

1. "One-Man" Show



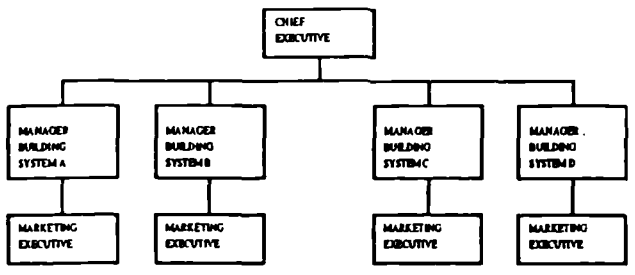

Comments : _____

2. Functional Structure



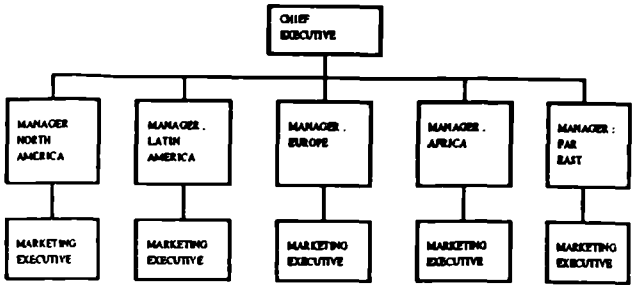

Comments : _____

3. Divisional Structure



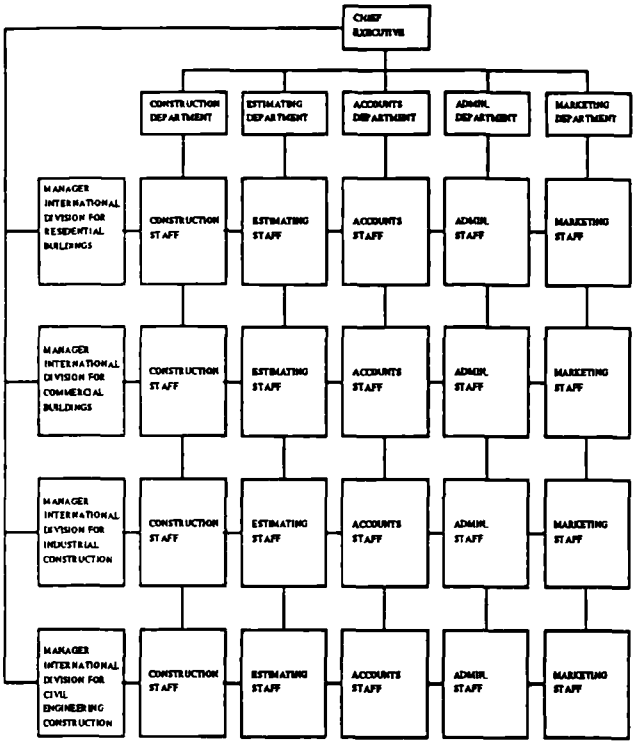

Comments : _____

4. Products Structure



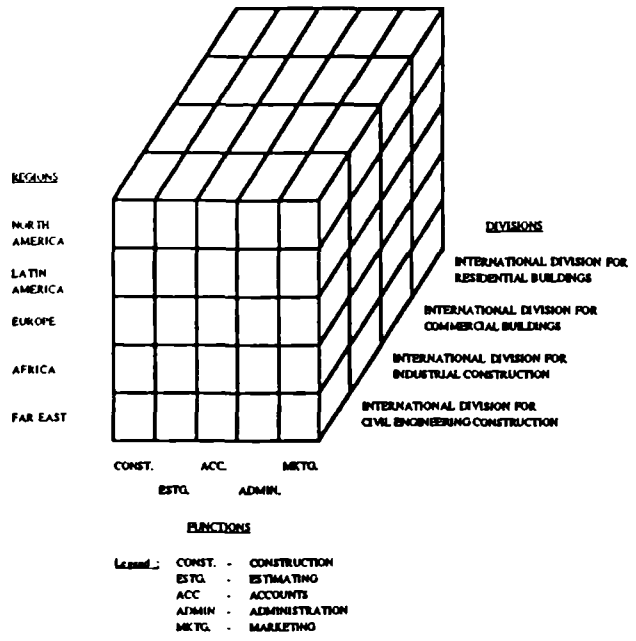

Comments :

5. Geographical Structure




Comments :

6. Matrix Structure




Comments :

7. Complex Structure

## CHECKLIST FOR INTERVIEWS

### A. General Marketing Organisation

1. (Question for non-marketing interviewees.)
   Is there a Marketing Executive in your company ?
   (If no, then who is responsible for marketing activities in your company ?)

2. Do you have a company organisation chart ?
   (If no, can you please draw an outline of your company organisation chart ?)

3. ***Where is the Marketing Department within your company organisation structure ?

4. How is the Marketing Department organised in turn ?
   Please draw the organisation chart for the Marketing Department.

5. How many full-time staff are there in the Marketing Department ?

6. What are the major activities of the Marketing Department ?
   (eg. Public Relations, Advertising, Market Research & Planning, etc.)

7. In so far as these marketing activities are concerned :
   a. Have you utilised external assistance before ? (eg. use of outside agents and marketing consultants.)
   b. Do you require external assistance ?

8. ***(The following question applies if there is no Marketing Department within the company.)
   Is there a specific reason for not having a Marketing Department within your company ?

### B. International Marketing Organisation

9. Who is responsible for marketing your company's construction services overseas ?

10. What are the major activities involved with marketing your company's construction services to overseas clients ?

11. How does your company's organisation structure reflects these activities ?
    (If possible, please indicate their origins on the organisation charts drawn.)

12. Your company's organisation structure for international marketing activities appears to be organised on a _____ basis.
    Are there any particular reasons as to why these activities are organised as such in your company ?

13. Has the organisation structure of your company / Marketing Department ever been changed to account for marketing your construction services overseas ?
    Yes ☐ No ☐ †††

14. If there have been changes to your company's organisation structure because of these marketing activities, what were the reasons for the change ?

15. †††If circumstances require you to reconcile your company's organisation chart to accommodate international marketing activities, what problems do you anticipate in restructuring the organisation ?